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ONE OR MORE ATTORNEYS ARE ALSO ADMITTED IN NY, DC OR MA

January 4, 1996
VIA FED EX

Mr. Lance R. Richman, P.G.
Emergency & Remedial Response Division
U.S. Environmental Protection Agency
290 Broadway, 19th Floor
New York, NY 10007-1866

RE: Second Request for Information
Diamond Alkali Superfund Site
Operable Unit 2

Dear Mr. Richman:

This letter refers to the second Request for Information that was sent to Alliance Chemical, Inc. ("Alliance") dated November 14, 1995 with respect to the Diamond Alkali Superfund Site, Operable Unit 2. Alliance received an extension of time until December 29, 1995 to submit a partial response to the second Request for Information, with the remainder due January 5, 1996. Alliance submitted a partial response on December 22, 1995 (the "Partial Response").

Enclosed is the remainder of the response of Alliance. For ease of reference, also enclosed is a duplicate of the Partial Response. Subject to the objections set forth in the Partial Response and in particular, the response to Question 6, and because of the volume of the documentation, Alliance has enclosed as examples copies of the MR-1 and MR-2 reports submitted monthly to PVSC from 1988 and 1978 respectively. Alliance will make the remainder of these reports available to EPA if, after review, EPA determines they are relevant.

Alliance reserves the right to submit additional information, including documentation, if new information is discovered.

Inquiries and correspondence for attorneys should be directed to this firm.

Very truly yours,

Fredi L. Pearlmutter

FLP:mme
cc: Mr. Richard E. Braun
Amelia Wagner, Esq. (w/o att.)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION II

EMERGENCY AND REMEDIAL RESPONSE DIVISION, 19th FLOOR

290 BROADWAY

NEW YORK, NEW YORK 10007-1866

NOV 1 4 1995

DEC 18 1995

CR&E

EXPRESS MAIL
RETURN RECEIPT REQUESTED

Richard E. Braun, Vice President of Operations
Alliance Chemical Inc.
33 Avenue P
Newark, New Jersey 07105

Re: Second Request for Information Under 42 U.S.C. §9601 et seq.
Diamond Alkali Superfund Site, Operable Unit 2

Dear Mr. Braun:

The United States Environmental Protection Agency ("EPA) has reviewed your responses to the "Request for Information" letter dated January 28, 1994. EPA requests that you answer the questions in the attached sheet and include documentation substantiating your response. Please note that all the statutory provisions and instructions in EPA's prior "Request for Information" letters are applicable to the information requested in this letter.

Pursuant to these statutory provisions, EPA hereby requires that you provide the information requested in Attachment A of this letter, as well as documents supporting your responses, and include the "Certification of Answers to Request for Information," with your notarized signature.

In preparing your response to this "Request for Information," please follow the instructions provided in Attachment B.

Your response to this "Request for Information" should be postmarked or received by EPA within thirty (30) calendar days of your receipt of this letter. Your response should be mailed to:

Mr. Lance R. Richman, P.G.
Emergency and Remedial Response Division
U.S. Environmental Protection Agency
290 Broadway, 19th Floor
New York, New York 10007-1866

with a copy to Ms. Amelia Wagner, Assistant Regional Counsel, Office of Regional Counsel, 17th Floor at the same address.

Your failure to respond to this "Request for Information" within the time specified above may subject you to an enforcement action under Section 104(e)(5) of CERCLA, 42 U.S.C. §9604(e)(5), and/or Section 3008 of RCRA, 42 U.S.C. §6928. An enforcement action may include the assessment of penalties of up to $25,000 for each day of continued noncompliance.

Be advised that you are under a continuing obligation to supplement your response if information not known or not available to you as of the date of submission of your response should later become known or available. If at any time in the future you obtain or become aware of additional information and/or find that any portion of the submitted information is false, misleading or misrepresents the truth, you must promptly notify EPA. If any part of your response is found to be untrue, you may be subject to criminal prosecution.

If desired, you may assert a business confidentiality claim covering all or part of the information requested by this letter. The claim must be supported by each of the four factors specified in Section 104(e)(7)(E) of CERCLA, 42 U.S.C. §9604(e)(7)(E), and must be asserted at the time of submission, by placing on (or attaching to) the information a cover sheet, stamped or typed legend, or other suitable form of notice employing language such as "trade secret" or "proprietary" or "company confidential." Information covered by such a claim will be disclosed by EPA only to the extent and by means of procedures set forth in Title 40 C.F.R. Part 2, Subpart B. If no such claim accompanies the information when it is received by EPA, it may be made available to the public by EPA without further notice to you.

If you have any questions concerning this "Request for Information," please contact Mr. Richman, of my staff, at (212) 637-4409 or Ms. Wagner at (212) 637-3141. Inquiries from attorneys should be directed to Ms. Wagner.

Sincerely yours,

John S. Daniels

for Kathleen C. Callahan, Director
Emergency and Remedial Response Division

Attachments

ATTACHMENT A

REQUEST FOR INFORMATION

Background

The United States Environmental Protection Agency ("EPA") is investigating the disposal of hazardous wastes into the Passaic River. EPA has information indicating that wastes from your facility may have been discharged into the Passaic River.

Provide the information requested below, including copies of all available documentation that supports your answers.

1) A New Jersey Community Right to Know Survey of Alliance's facility in 1988 lists the following chemicals:

Acetic Acid
Acetone
Acetylene
Ammonium Hydroxide
n-butyl Bromide
2-ethoxyethanol
NN-dimethylformamide
1-diazo-4-NN-Dimethylamino Benzene
1-diazo-2,5-Dibutoxy-4-Morpholino Benzene
1-diazo-2,5-Dibutoxy-4-Morpholino Benzene Borofluoride
1-Diazo-4-NN-Diethylaminobenzene Borofluoride
1-Diazo-3-Methyl-4-Pyrrolidinobenzene
1-Diazo-4[ethyl-(2-hydroxy ethyl)amino]Benzene
2,4-dinitrochlorobenzene
Dichlorodifluoromethane
Hydrochloric Acid
Magnesium Sulfate
Sodium Hydroxide
Sodium Nitrate
Zinc
Zinc Chloride

For each chemical listed above, describe:

a. what manufacturing process each chemical is used in;
b. what product is a result of that manufacturing process;
c. how many times that process is used per year;
d. What chemical byproducts are generated during the manufacturing process; and
e. what is the average percent yield of product of that process.

2) During what parts of the manufacturing processes identified in the response to item (1), above, were wastes generated? Describe the chemical composition of these wastes. For each process, what amount of waste was generated per volume of finished product? Were these wastes combined with wastes from other processes? If so, wastes from what processes?

3) Describe the methods of collection, storage, treatment, and disposal of each waste identified in the response to item (2), above.

4) You stated in your previous CERCLA 104(e) response (dated January 8, 1994) that an unlined lagoon existed from 1965 until 1970 and was a part of the effluent system. Identify what waste was stored in this lagoon? Were the bottom sediments of this lagoon ever tested? Provide all results of any sampling done on the lagoon.

5) You stated in your previous CERCLA 104(e) response that the unlined lagoon discharged into a drainage ditch prior to 1970. Were any bottom sediments of this ditch ever tested? Provide all results of any sampling done on the ditch.

6) You stated in your previous CERCLA 104(e) response that after 1970, waste was discharged to the Passaic Valley Sewerage System ("PVSC"). Provide all results of testing of waste that was submitted to the PVSC.

7) In your previous CERCLA 104(e) response you discussed the deposition of solid waste since 1970. What was the storage mechanism for solid waste prior to 1970?

8) In your previous CERCLA 104(e) response you indicated that process effluent waters were discharged from 1965-1970 to Plum Creek. Subsequently the waste waters were sent to the PVSC.

a. Please provide all documents relating to the results of any analyses of process water, waste water or other waste streams generated at the facility, including any information on the type of waste water discharged.

b. Please provide specific information on the method or neutralization or pre-treatment of the process water, waste water or other waste streams prior to discharge.

9) Provide the name, address, telephone number, title and occupation of the person(s) answering this "Request for Information" and state whether such person(s) has personal knowledge of the responses. In addition, identify each person who assisted in any way in responding to the "Request for Information" and specify the question to which each person assisted in responding. To the extent not already listed, please identify all current or former employees and agents of your company who were contacted in the preparation of this response.

ATTACHMENT B

INSTRUCTIONS FOR RESPONDING TO REQUEST FOR INFORMATION

1. A complete separate response must be made to each individual question in this "Request for Information".

2. Precede each answer with the number of the question to which it is addressed.

3. In preparing your response to each question, consult with all current or former employees and agents of your company who may be familiar with the matter to which the question pertains.

4. Interpret "and" as well as "or" to include within the scope of the question as much information as possible. If two interpretations of a question are possible, use the one that provides more information.

5. If you are unable to give a detailed and complete answer or to provide any of the information or documents requested, indicate the reasons for your inability to do so.

6. If you have reason to believe that an individual other than one employed by your company may be able to provide additional details or documentation in response to any question, state that person's name, last known address, phone number and the reasons for your belief.

7. For each document produced in response to this "Request for Information", indicate on the document, or in some other reasonable manner, the number of the question to which it applies.

8. If anything is deleted from a document produced in response to this "Request for Information", state the reason for, and the subject matter of, the deletion.

9. Provide all documents that relate to each question. If a document is requested but is not available, state the reason for its unavailability. In addition, to the best of your ability, identify any such document by author, date, subject matter, number of pages, and all recipients and their addresses.

10. As used herein "relate to" or "relating to" means constituting, defining, containing, embodying, reflecting, identifying, stating, referring to, dealing with, or in any way pertaining to. "Document" as used herein means any recording of information in tangible form, including memoranda, handwritten notes, invoices, checks, manifests, tape recordings, computer databases, or any tangible or physical objects however produced or reproduced upon which words or other information are affixed or recorded or from which by appropriate transcription written matter or a tangible thing may be produced.

11. Whenever in this "Request for Information" there is a request to identify a person or an entity other than a person, state the person or entity's full name, last known employment, present or last known home address, and telephone number.

12. As used herein, the term "facility," "hazardous substance," "person," and "release" shall have the meaning set forth in Section 101(9), (14), (21) and (22) of CERCLA, 42 U.S.C. §9601(9), (14), (21), and (22), respectively.

13. In answering these questions, every source of information to which you have access should be consulted, regardless of whether the source is in your immediate possession or control. All documents or other information, including records of all types of manufacturing, treatment, transportation or disposal operations, in your possession or in the possession of the Corporation should be consulted. If you do not have access to certain information and/or documents, state the nature of this information and/or documents, and indicate in whose possession they can be found.

CERTIFICATION OF ANSWERS TO REQUEST FOR INFORMATION

State of New Jersey

County of Bergen :

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document (response to EPA Request for Information) and all documents submitted herewith, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete, and that all documents submitted herewith are complete and authentic unless otherwise indicated. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment. I am also aware that my company is under a continuing obligation to supplement its response to EPA's Request for Information if any additional information relevant to the matters addressed in EPA's Request for Information or the company's response thereto should become known or available to the company.

Richard E. Braun
NAME (print or type)

Vice President, Operations
TITLE (print or type)

Richard E Braun
SIGNATURE

Sworn to before me this 15th
day of December , 1995

Geraldine Mengenski
Notary Public

My Commission Expires
January 22, 2000

840530009

RESPONSE TO QUESTIONS

Time Period 1965 - 1970 unless otherwise noted

1) **ACETIC ACID**

1a. Used in mfg. of 1-Diazo-3-methyl-4- pyrrolidinobenzene to aid crystallization.
1b. 1-Diazo-3-methyl-4- pyrrolidinobenzene
1c. 1968 1 batch 1969 3 batches 1970 19 batches
1d. Zinc Chloride
1e. Approx. 75%

2. Zinc chloride 1.8 lbs./lb. Product is generated during the reduction of nitro pyrrolidinotoluene to the amine.
All process liquors were combined in the plant sewers.
Carbon clarification cake is produced during purification at ~ 0.1 lb/lb product. See Attachment 1.

3. Process liquors flowed to a neutralization tank where pH was adjusted to >5.0 and <10.5 .
These liquors were continuously discharged.

2) **ACETONE**

1a. Used only in the laboratory as a solvent.
1b. None
1c. N/A
1d. N/A
1e. N/A

2. N/A
3. N/A

3) **Acetylene**

1a. Used in maintenance dept. For cutting and welding.

1b. None
1c. N/A
1d. N/A
1e. N/A

2. N/A

3. N/A

4) **Ammonium Hydroxide**

1a. Used to neutralize acidic waste water from approx. 1980 until approx. 1989.
1b. None
1c. N/A
1d. N/A
1e. N/A

2. N/A

3. N/A

5) **N-Butyl Bromide**

1a. Etherification
1b. 1 4 Dibutoxybenzene
1c. 45 batches/yr.
1d. Sodium Bromide sodium hydroxide
1e. 95+%

2. During reaction sodium bromide is formed and is dissolved in the process filtrate along with a small amount of sodium hydroxide.

3. Mixed with other process effluents neutralized and discharged to equalization pond.

6) **2-Ethoxyethanol**

1a. i. As a solvent in various textile solutions
ii. As a solvent in several chemical reactions

1b i. Various textile solutions
ii. Dibutoxy benzene
iii. Nitro pyrrolidinotoluene

1c. i. Approx. 60 batches/yr.
ii. 45 batches/yr.
iii. 1968 1 batch 1969 3 batches 1970 19 batches

1d. i. None. Everything shipped as product.
ii. Sodium bromide 2-ethoxyethanol
iii. Sodium chloride 2-ethoxyethanol

1e. i. 100%
ii. 95+%
iii. 95%

2. i. N/A
ii. During reaction. Combined with all other process effluents.
iii. During reaction. Combined with all other process effluents.

3. ii iii.. Mixed with other process effluents neutralized and discharged to equalization pond.

7) **N,N-dimethylformamide**

1a. As a solvent in various textile solutions.
1b. Various textile solutions
1c. Did not use 1965 - 1970
1d. None. Everything shipped as product.
1e. 100%

2. N/A
3. N/A

8) **1-diazo-4-N,N-dimethylaminobenzene**

1a. Is a product first produced in 1978. Any waste associated with its production went to the POTW.

9) **1-diazo-2,5-dibutoxy-4-morpholino benzene, Zinc salt; Sulfate salt; Borofluoride salt**

1a. These are final products being various salts of the same base.
1b. These products are known as Diazo 54 Zinc Diazo 54 Sulfate and Diazo 55 respectively.
1c.

D-54 Zn	15-20 batches/yr.
D-54 Sulfate	35-50 batches/yr.
D-55	First made in 1980.

1d Spent activated carbon cake is produced during the purification. Hydrochloric acid or sulfuric acid.
1e.

D-54 Zn	76.9%
D 54 Sulfate	82.3%
D 55	87.5%

2. The activated carbon cake is produced during the purification process. See attachment 1.
The volume is approximately 10% on a dry basis of the finished product.
3. Process filtrates are mixed with other process effluents neutralized and discharged to equalization pond.

10) **1-Diazo-N,N-diethylaminobenzene borofluoride**

1a. First made in 1987.
1b. Diazo 69.
1c. N/A
1d. N/A
1e. N/A

2. N/A
3. N/A

11) **1-Diazo-3-methylpyrrolidinobenzene**

1a. This is a finished product of a diazotization reaction.
1b. Diazo 88
1c. 1968 1 batch 1969 3 batches 1970 19 batches
1d. Zinc chloride hydrochloric acid Spent activated carbon. See attachment 1.
1e. 75%

2. Approx. 700 lbs. of zinc chloride is produced and discharged with the process liquors along with hydrochloric acid. Carbon clarification presscake. 1.84 lbs zinc chloride is produced per pound of product

3. All process liquors were combined in the plant sewers.
Carbon cake is produced during purification at ~ 0.1 lb/lb product. See attachment 1

12) **1-Diazo-4-ethyl-(2-hydroxyethyl)amino]benzene**

1a. This is a finished product of a diazotization reaction.
1b. Diazo 10
1c. Only produced from 1986 to 1990.
1d. N/A
1e. N/A

2. N/A

3. N/A

13) **2,4-dinitrochlorobenzene**

1a. Production of Scarlet R base. (Methoxylation and Reduction)
1b. Scarlet R Base
1c. Approx. 80-100 batches/yr.
1d. Sodium Thiosulfate sulfur methanol sodium hydroxide sodium chloride unknown reaction by-products.
1e. Approx. 80%.

2. During the methoxylation and reduction the by-products listed in 1d. above are produced and are all present in the process filtrate from this product.

3. Process filtrates are mixed with other process effluents neutralized and discharged to equalization pond.

14) **Dichlorodifluoromethane**

1a. Used as refrigerant only in ice makers.
1b. N/A
1c. N/A
1d. N/A
1e. N/A

2. N/A

3. N/A

15) **Hydrochloroic Acid**

1a. Used in Diazotizations and Base Purifications
1b. Diazo salts and Base salts.
1c. Daily
1d. Dilute aqueous waste containing hydrochloric acid some product and unknown by-products. Carbon clarification presscake.
1e. 75-90%

2. Dilute aqueous waste and carbon cake. The aqueous waste was gererally 2-5% acid concentration with some batches having a higher strength. The carbon cake was produced during a purification step. See Attachment 1.

3. Process filtrates are mixed with other process effluents neutralized and discharged to equalization pond. Carbon clarification presscakes stored in drums and disposed in landfill.

16) **Magnesium Sulfate**

1a. Drying and blending of fast color salts.
1b. Fast color salts (Stabilized diazo compounds)
1c. No current production. In the past as often as 120 to 130 times per year.
1d. None. Magnesium Sulfate is part of product.
1e. 100%

2. N/A

3. N/A

17) **Sodium Hydroxide**

1a. i. As a component in textile solutions.
ii. As a reactant in alkoxylations
iii. As a neutralizing agent for plant acidic wastes.
1b. i. Textile solutions
ii. Diethoxybenzene dibutoxybenzene 5- nitro-2-methoxy aniline (Scarlet R Base)
iii. N/A
1c. i. 30-50 Batches/yr.
ii. Approx. 100 batches/yr.
iii. Continuously (automatic)
1d. i. None. Sodium hydroxide is part of and shipped with product.
ii. Sodium Bromide sodium hydroxide sodium sulfate
iii. Sodium Chloride sodium sulfate zinc hydroxide.
1e. i. Essentially 100%
ii. 95+%
iii. N/A

2. i. N/A
ii. During reaction sodium sulfate and or sodium bromide are formed and are dissolved in the process filtrates along with a small excess of sodium hydroxide.
iii. N/A

3. i. N/A
ii. Mixed with other process effluents neutralized and discharged to equalization pond.
iii. POTW

18) **Sodium Nitrate** Never used
Sodium Nitrite

1a. Diazotizations
1b. Light sensitive diazos and fast color salts.
1c. Daily
1d. Sodium nitrite is completely consumed during the reaction
1e. 95+%

2 Dilute aqueous waste and carbon clarification presscakes. The aqueous waste was gererally 2-5% acid concentration (sulfuric or hydrochloric) with some batches having a higher strength. The carbon presscake was produced during a purification step. See Attachment 1.

3. Process filtrates are mixed with other process effluents neutralized and discharged to equalization pond. Carbon clarification presscakes stored in drums and disposed of in landfill.

19) **Zinc**

1a. Reduction of aromatic nitro compounds to aromatic amines.
1b. Intermediate products were aromatic amines which were converted in situ to diazo compounds.
1c. Daily
1d. Zinc Chloride zinc sulfate
1e. 100% for reductions

2. During reduction $Zn + ArNO_2 + H^+ \rightarrow Zn^{+2} + ArNH_2$ in aqueous solution.
See attachment 1
3. Carbon clarification presscakes stored in drums and disposed of in landfill.

20) **Zinc Chloride**

1a. Diazotizations
1b. Fast color salts and other diazo compounds
1.c 120 batches/yr.
1d. Zinc Chloride Hydrochloric acid sodium chloride small amount of product.
1e. 80-90%

2. Dilute aqueous waste containing materials in 1d. above and carbon clarification presscake. The aqueous waste was gererally 2-5% acid concentration with some batches having a higher strength. The carbon presscake was produced during a purification step.

3. Process filtrates are mixed with other process effluents neutralized and discharged to equalization pond. Carbon clarification presscakes stored in drums and disposed in landfills. See attachment 1.

ATTACHMENT 1

Carbon cake waste is a damp paste consisting of spent activated carbon filter aid water color impurities and insoluble materials. It is produced during the purification step in most of our processes. During this purification most processes use 40-50 pounds of activated carbon and 25 pounds of filter aid. The amount produced per pound of product varies widely with the batch size of the individual product.

All liquid wastes consist of acidic water containing various dissolved organic and inorganic salts and some suspended solids. It is collected in the plant sewer system and neutralized before discharge.

4) *You stated in your previous CERCLA 104 (e) response (dated January 8, 1994) that an unlined lagoon existed from 1965 until 1970 and was part of the effluent system. Identify what waste was stored in this lagoon. Were the bottom sediments of this lagoon ever tested? Provide all results of any sampling done on the lagoon.*

The unlined lagoon was used as a equalization pond for our aqueous effluent. The residence time was approximately two days. To the best of our knowledge the bottom sediments were never tested.

5) *You stated in your previous CERCLA 104 (e) response that the unlined lagoon discharged into a drainage ditch prior to 1970. Were any bottom sediments of this ditch ever tested? Provide all results of any sampling done on this ditch.*

To the best of our knowledge the bottom sediments of this ditch were never tested.

6) *You stated in your previous CERCLA 104 (e) response that after 1970 waste was discharged to the Passaic Valley Sewerage System ("PVSC"). Provide all results of testing of waste that was submitted to the PVSC.*

Process effluent waters were discharged to PVSC not waste. Analyses of effluent previously submitted are attached. We can also provide if necessary the MR2 (TSS BOD pH) reports submitted monthly to PVSC from 1978 to the present and the Baseline Monitoring Report and monthly MR1 (OCPSF Categorical Pretreatment Compliance Reports) submitted to PVSC from 1988 on.

7) *In your previous CERCLA 104 (e) response you discussed the deposition of solid waste since 1970. What was the the storage mechanism for solid waste prior to 1970.*

As previously reported the zinc oxide was recovered and sold to companies which reclaimed the zinc. It was stored either as a slurry in tanks as presscake in drums or in a concrete holding bin. Non hazardous clarification carbon presscakes were stored in drums and lanfilled.

8) *In your previous CERCLA 104 (e) response you indicated that process effluent waters were discharged from 1965 - 1970 to Plum Creek. Subsequently the waste waters were sent to the PVSC.*

a. Please provide all documents relating to the results of any analyses of process water, waste water or other waste streams generated at the facility, including any information on the type of waste water discharged.

All analytical analyses that we have for the period 1965 - 1988 have been previously been submitted. See 6).

b. Please provide specific information on the method or neutralization or pre-treatment of the process water, waste water or other waste streams prior to discharge.

For the time period 1965 - 1970 acidic process effluent waters were neutralized in tanks prior to being discharged to the equalization pond. Non-acidic process effluent waters were discharged directly to the equalization pond. After 1970 all process waters were discharged to the equalization pond and then neutralized with 25% caustic soda or dilute ammonia. The equalization pond was not used after 1979.

9) *Provide the name, address, telephone number, title and occupation of the person(s) answering this "Request for Information" and state whether such person(s) has personal knowledge of the responses. In addition, identify each person who assissted in any way in responding to the "Request for Information" and specify the questionto which each person assissted in responding. To the extent not already listed, please identify all current or former employees and agents of your company who were contacted in the preparation of this response.*

The following persons have worked together in responding to all questions and have personal knowledge of the responses:

Richard E. Braun
Vice President Operations
Alliance Chemical Inc.
Linden Avenue
Ridgefield NJ 07657 (201) 945-5400

William Henning
Plant Manager
Alliance Chemical Inc.
309-327 Avenue P
Newark NJ 07105 (201) 344-2344

Return to:
PASSAIC VALLEY SEWERAGE COMMISSIONERS
390 Broad Street
Newark, N. J. 07102

Date: May 10, 1972

Plant Ref. No. PRE0446

WASTE EFFLUENT SURVEY

(For Industries Served by the Passaic Valley Sewerage Commissioners)

Plant Name: Alliance Chemical Inc.

Address: 33 Avenue P, Newark, New Jersey Zip 07105

Person and Title to whom any further inquiries should be directed:
Richard D. Leonard - Plant Manager

Phone No.: 344-2344

Number of Employees: 45

Number of Working Days Per Week: Normally 5

Number of Shifts Per Day: 3

Area of Property: ..... Acres, or approx. 150,000 Sq. Ft.

Type of Industry and 4 digit U. S. Standard Industrial Classification No.:
Chemical - SIC 2815

Finished Product(s): Dyestuffs, Intermediates for Textile Industry

Average Production: Confidential

Raw Materials Used: Amine type bases - too numerous to itemize

Brief Description of Operations: Batch Chemical Processes - Clarification, Filtration, Sulfonation, Nitrations, Chlorinations, Diazatations, Condensations, Simple mixing and blending, drying, etc.

840530023

NEW YORK TESTING LABORATORIES, INC.

Page

Lab No.

RESULTS

	Effluents 24 hr. 12-12-79
Color (Pt/Co Units)	12
Turbidity (NTU)	30
pH (@ 20 Deg. C.)	6.67

Results in mg/l

Total Solids	31240
Total Volatile Solids	7182
Total Mineral Solids	24058
Total Suspended Solids	2355
Volatile Suspended Solids	930
Mineral Suspended Solids	1425
Emulsified Oil and Grease	1006.0
Chlorides	15078
Sulfate	620
BOD-5 Day	4600
COD	10870
Total Organic Carbons	2010
Sulfide	100.0
Sulfite	200
Surfactants	80.8
TKN as N	1360
Ammonia as N	1021
Nitrate as N	7.74
Nitrite as N	0.09
Ortho-Phosphate as P	0.09
Phenols	2.046
Antimony	< 0.10
Arsenic	0.140
Boron	< 1.0
Cadmium	0.158
Total Chromium	0.068
Copper	17.31
Iron	19.81
Lead	1.043
Mercury	0.005
Nickel	0.116
Selenium	0.070
Silver	0.056
Tin	< 0.78
Zinc	549.1

<None detected, less than

840530024

TO: GEORGE SHULMAN
ED O'CONNER
NICK DEMENNA

DATE: MAY 22, 1973

FROM: RICHARD D. LEONARD

SUBJECT: REPEAT SEWERAGE ANALYSIS BY HYDROSCIENCE

Samples taken from our sewerage discharge on May 8th (1 sample every 3 hours) were analyzed by Hydroscience and are summarized below against the analysis performed in April 1972 and against the 'standards' set up by the City of Newark.

	May 1973	April 1972	STANDARD
BOD	1580 mg/l	2692 mg/l	350 mg/l
Suspended Solids	413 mg/l	720 mg/l	400 mg/l
Oil & Grease	180 mg/l	406 mg/l	125 mg/l

As you can see all results come closer to the STANDARD and only the BOD is far in excess of the STANDARD.

Mr. Timothy Sullivan, of Hydroscience, relates that they have dealt with the City of Newark on similar matters and would do so in our behalf at our request.

The two samples would be picked up by Malcolm Pirnie, Inc. (MPI) personnel and transported to our White Plains laboratory for analysis. The results of the analysis would be communicated to you in a form suitable for submittal to the Bergen County Sewer Authority. We would perform this service for a charge of $280 per quarterly sample.

The MPI laboratory is certified as an analytical lab by the New Jersey Department of Environmental Protection (NJDEP) for drinking water analyses (the only type of certification available); we currently perform similar services for other industrial clients satisfying sewer authority requirements.

If you have any questions regarding this matter, please do not hesitate to contact us.

Very truly yours,

MALCOLM PIRNIE, INC.

Dick

Richard P. Brownell
Vice President

RPB:hkh

encl.

cc: Mr. W. Henning

Lab No: 79-57361

Date: December 31, 1979

NEW YORK TESTING LABORATORIES, INC.

P.O. BOX 484, 81 URBAN AVENUE, WESTBURY, L.I., N.Y. 11590 • (516) 334-7770 • (212) 297-1449

REPORT OF TESTS

Client	—	79-57361 - Alliance Chemical, Inc.
Material	—	One (1) Water Sample
Client's Order No.	—	A-5055
Identification	—	As below
Submitted for	—	Chemical Analysis

We find as follows:

(Results, see Page 2.)

We certify that this report is a true report of results obtained from our tests of this material.

Respectfully submitted,

NEW YORK TESTING LABORATORIES, INC.

G. J. Horvitz
Chief Officer

To:

Alliance Chemical, Inc.
33 Avenue P.
Newark, New Jersey 07105

Att: Indu Vibhakar

gd

FWM

Water Samples 8 Feb 66

	Acid Pond	Stream
pH	3.15	7.5
cc 1N NaOH	10.0	1.3
r 100cc sample	Strong buffering	No buffering action
pH 7.0	Large floc ppted	No ppt.
ulfates	High	Very low
hlorides	High	High
dor	Solvent (MCB?)	Sulfide
razotized		
cross spotted	Red coupling	Blue coupling
(β naphthol		

840530028

Water received in *Gallons* (Note: multiply cu. ft. x 7.48)

Purchased water in 1971 from: ~~Specify name~~ CITY OF NEWARK

1st Quarter 7,451,600

2nd Quarter 8,031,300

3rd Quarter 7,455,300

4th Quarter 6,290,700

Total Purchased 1971: 29,228,900 gallons

Well Water

1st Quarter none

2nd Quarter

3rd Quarter

4th Quarter

Total well water received in 1971: none

River Water

1st Quarter none

2nd Quarter

3rd Quarter

4th Quarter

Total river water taken in in 1971: none

TOTAL OF ALL WATER RECEIVED IN 1971: 29,228,900 gallons

Water Use in 1971:

Water to Product (include evaporated and lost water): 29,228,900 gallons

Water to Sanitary Sewer: approx. 29,200,000 gallons

Water to Storm Sewer, River or Ditch: surface and storm water - cannot estimate

TOTAL WATER USE IN 1971: 29,228,900

Name of River, Stream, or Tributary, and location of storm sewer or ditch outlet to river, stream, or tributary: Sewer system tied in to Avenue P sewer system.

840530029

ANSWER THE FOLLOWING QUESTIONS ONLY IF THE PLANT WASTE INCLUDES WASTE ATTRIBUTABLE TO INDUSTRIAL OPERATIONS

(Note: Analyses should be based on a 24-hour composite sample)

Characteristics of Plant Waste discharged to sanitary or combined sewer, after treatment if any. Indicate units of measure where applicable (e.g. Mg/l).

a) pH: 6.3 b) Turbidity: 1100 JCU

c) Temperature: ambient d) Radioactive? Yes ..... No x

e) Solids Concentration:

1) Total Solids 16,988 mg/l Volatile 4,164 mg/l Mineral —

2) Suspended Solids 720 mg/l Volatile 475 mg/l Mineral —

f) Oil and Grease Concentration:

1) Floatable Oils 406 mg/l

2) Emulsified Oils .....

g) Chlorides 5,150 mg/l

h) Chemical Oxygen Demand (C.O.D.): 7,160 mg/l

i) 5-day Bio-chemical Oxygen Demand (B.O.D.): 2,692 mg/l

j) Total organic carbon (T.O.C.): 1,193 mg/l

k) Metallic Ions—Name and concentration (Important—list each metal in waste, e.g., chromium hex. and triv. Antimony, Lead, Mercury, Copper, Vanadium, Nickel; give concentration and total daily discharge of each metal.)

Zn 500 mg/l

l) Toxic Material—Name and concentration e.g., cyanide salts, etc.):

none

m) Solvents—Name and concentration:

none

n) Resins—Name and concentration (Lacquers, Varnishes, Synthetics):

none

o) Date and time span of sample April 18-20, 1972 48 Hourly samples

Explain hours, method of discharge of waste to Sanitary Sewer and peak rate of flow, e.g., (continuing for 8 hours per day, 5 days per week at 100 gal./day rate) (batch twice a day for 20 minutes at 100 gal./min.) (Continuous 24 hours steady or with peaks at 2 P.M., peak rate 3 M.G.D.) etc.

Continuous 24 hours per day discharge - rate will vary but cannot predict peaks - Average rate is about 100 gpm

840530030

Characteristics of Plant Discharge to Storm Sewer, River, or Ditch, after treatment if any. Indicate units of measure where applicable (e.g., Mg/l).

a) pH: ONLY STORM WATER GOES TO STORM SEWER b) Turbidity: .....

c) Temperature: ..... d) Radioactive? Yes ..... No .....

e) Solids Concentration:

1) Total Solids ..... Volatile ..... Mineral .....

2) Suspended Solids ..... Volatile ..... Mineral .....

f) Oil and Grease Concentration:

1) Floatable Oils .....

2) Emulsified Oils .....

g) Chlorides .....

h) Chemical Oxygen Demand (C.O.D.): .....

i) 5-day Bio-chemical Oxygen Demand (B.O.D.): .....

j) Total Organic Carbon (T.O.C.): .....

k) Metallic Ions—Name and concentration (Important—list each metal in waste, e.g., chromium hex. and triv. Antimony, Lead, Mercury, Copper, Vanadium, Nickel; give concentration and total daily discharge of each metal.):

.....

.....

l) Toxic Material—Name and concentration (e.g., cyanide salts, etc.): .....

.....

m) Solvents—Name and concentration: .....

.....

n) Resins—Name and concentration (Lacquers, Varnishes, Synthetics): .....

.....

o) Date and time span of sample: .....

Do you pretreat any waste before discharge? .....

If so, describe process and disposal of residue removed: .....

.....

.....

.....

Certification of Laboratory doing sampling and making analyses shall be given. Procedures shall be those shown in the 13th edition of Standard Methods for the Examination of Water and Wastewater, where applicable. If no procedure is applicable, the laboratory is to describe method and procedure used in analyses.

Richard Leonard

.....

Signature and title of person preparing report

Plant Manager

HYDROSCIENCE, INC.
Consultants in Water Pollution Control
363 OLD HOOK ROAD
WESTWOOD, NEW JERSEY 07675
201-666-2600

DONALD J. O'CONNOR
EDWIN L. BARNHART
JOHN L. MANCINI

Associates
THOMAS J. MULLIGAN
JOHN P. ST. JOHN
ROBERT V. THOMANN

May 4, 1972

Mr. Richard Leonard
Alliance Chemical Co., Inc.
33 Avenue P
Newark, New Jersey 07105

Dear Mr. Leonard:

In accordance with your request, samples from Alliance Chemical, Inc., Newark, New Jersey, were analyzed in order to complete the Passaic Valley Sewerage Commission Survey. These tests were performed on the Industrial Waste only as the only flow entering the storm sewer is storm water. The results are as follows:

pH	6.3
Turbidity	1100 JCU
Total Solids	16,988 mg/l
Total Volatile Solids	4,164 mg/l
Suspended Solids	720 mg/l
Volatile Suspended Solids	475 mg/l
Oil & Grease	406 mg/l
Chlorides	5,150 mg/l
COD	7,160 mg/l
BOD	2,692 mg/l
TOC	1,193 mg/l
Zn	500 mg/l

I hope these results will be of assistance for the completion of the questionnaire. If our office can be of further assistance, please call us.

Very truly yours,

Timothy Sullivan

Timothy Sullivan

TS:bjl

To: Jud Merl
From: Richard D. Leonard

February 7, 1969

Subject: Alliance Plant - Sewerage Discharge

In order to establish the approximate sewer discharge rates from the Alliance Plant a 60° V-Notched Weir was installed across the creek handling the plant sewerage. The flow to the acid pond was blocked off during the measurement period.

Readings and samples were taken every 4 hours from Jan 23rd through Jan 31st (weekend excluded). From this work flow and pH conditions of our plant discharge were estimated.

The flow ranged, for the most part, between 70 gpm and 112 gpm and the pH was alkaline for long periods and acid for long periods. But even low (acid) pH readings were brought to pH 6-7 with very little treatment - 1 gram 50% caustic per gal of sewerage.

Readings have now ceased and the weir has been removed from the creek. The attached tabulation and visual plot of the readings will give a complete picture of the survey.

Mr. Ready of the Passaic Valley Sewerage called on Jan. 16, 1969 and was interested in the results of the "up coming survey." I will await word from you before corresponding with him.

SURVEY DATA FROM CREEK

Date	Time	GPM	pH
1-23	3 PM	29	9.9
1-23	4 PM	29	11.3
1-23	8 PM	29	2.6
1-23	12 PM	80	7.7
1-24	4 AM	80	9.8
1-24	9 AM	71	7.7
1-24	1 PM	100	
1-24	4 PM	71	11.6
1-24	8 PM	90	8.0
1-24	12 PM	71	12.0
1-25	4 AM	112	5.6
1-25	8 AM	71	4.0
1-27	8 AM	20	6.0
1-27	12 AM	71	9.5
1-27	4 PM	71	1.0
1-27	8 PM	124	1.0
1-27	12 PM	100	1.0
1-28	4 AM	90	3.0
1-28	8 AM	80	3.0
1-28	9 AM	112	5.0
1-28	12 AM	100	1.0
1-28	4 PM	100	1.5
1-28	5 PM	41	8.0
1-28	8 PM	112	8.0
1-28	12 PM	136	8.0
1-29	4 AM	80	1.0
1-29	8 AM	71	11.0
1-29	12 AM	71	5.5
1-29	4 PM	112	5.5
1-29	8 PM	150	
1-29	12 PM	164	5.5
1-30	4 AM	112	1.0
1-30	8 AM	100	1.0
1-30	1 PM	71	1.0
1-30	4 PM	71	9.0
1-31	8 AM	112	2.0
1-31	4 PM	112	5.0
1-31	8 PM	212	5.0
1-31	12 PM	112	5.0

cc: CP Motta, Jr.

USER CHARGE SELF MONITORING REPORT

NAME ALLIANCE CHEMICAL INC.

ADDRESS 33 AVENUE P, NEWARK, N.J. , 07105

FACILITY LOCATION SAME

SEWER DESIGNATION (17 DIGITS) 30401030-44000-1001

MONITORING PERIOD					
	1	94	1	31	94
	DAY	YR	MO	DAY	YR
START			END		

VOL DISCHARGED THIS PERIOD
3432220
CU. FT. X 7.48 = GALLONS
EFFLUENT METER READING LAST DAY THIS PERIOD.

DATE	BOD 0310	TSS 0530		DATE	BOD 0310	TSS 0530	
1/94	340	13.2					

SIGNATURE OF PRINCIPAL OR AUTHORIZED AGENT	TYPE NAME AND TITLE	TELEPHONE NO.
William Henning	WILLIAM HENNING	344-2344
EPA FORM MR-2 REV.2.1/86	PLANT MANAGER	
		DATE: February 4, 1994

840530034

ALLIANCE CHEMICAL INC.
A SUBSIDIARY OF PFISTER CHEMICAL INC.

November 17, 1995

Passaic Valley Sewerage Commissioners
Industrial Waste Control Department
600 Wilson Avenue
Newark, NJ 07105

Dear Sir:

Enclosed find the MR-1 forms for Alliance Chemical Inc's. report on compliance for the period 10/01/95 to 10/31/95.

If you have any questions please do not hesitate to call.

Very truly yours,

ALLIANCE CHEMICAL, INC.

Richard E. Braun
V.P. Operations

REB:ism
Return receipt requested
P 323 517 577

841160001

309-327 AVENUE P, NEWARK, NJ 07105 • (201) 344-2344 • FAX (201) 945-0159 • TELEX 130-295 (PFISTER RIDE)

PRETREATMENT MONITORING REPORT

Name	ALLIANCE CHEMICAL INC
Mailing Address	33 Avenue P, Newark, NJ 07105
Facility Location	309 Avenue P, Newark, NJ 07105
Category and Subpart	40 CFR 414.85 Subpart H
Contact Official	William Henning

Outlet # 20401080-0201
Telephone # (201) 344-2344

Monitoring Period					
10	1	95	10	31	95
Mo.	Day	Yr.	Mo.	Day	Yr.
Start			End		

For Reporting Period

	Avg.
Regulated flow-MGD	0.01611
Total flow- MGD	0.01654

Method used:

Composite sample masses were determined using total flow.
Grab sample masses were determined using total flow minus domestic flow. (Regulated flow above)
Max. flow not determined. See Attachment 1.

Parameter		Mass Limit or Concentration			NO. of Samples	Sample type Comp/Grab
		Average	Maximum	Units		
Benzene	Sample measurement	<0.00027	<0.00027	lbs.	1	Grab
	Permit requirement	0.03234	0.07602	lbs.		
Carbon tetrachloride	Sample measurement	<0.00027	<0.00027	lbs.	1	Grab
	Permit requirement	0.08055	0.21557	lbs.		
Chlorobenzene	Sample measurement	0.01478	0.01478	lbs.	1	Grab
	Permit requirement	0.08055	0.21557	lbs.		
1,2,4-trichlorobenzene	Sample measurement	<0.00345	<0.00345	lbs.	1	Composite
	Permit requirement	0.11119	0.45043	lbs.		
Hexachlorobenzene	Sample measurement	<0.00428	<0.00428	lbs.	1	Composite
	Permit requirement	0.11119	0.45043	lbs.		
1,2-dichloroethane	Sample measurement	<0.00027	<0.00027	lbs.	1	Grab
	Permit requirement	0.10211	0.32562	lbs.		
1,1,1-trichloroethane	Sample measurement	<0.00027	<0.00027	lbs.	1	Grab
	Permit requirement	0.01248	0.03347	lbs.		
Hexachloroethane	Sample measurement	<0.00317	<0.00317	lbs.	1	Composite
	Permit requirement	0.11119	0.45043	lbs.		
1,1-dichloroethane	Sample measurement	<0.00027	<0.00027	lbs.	1	Grab
	Permit requirement	0.01248	0.03347	lbs.		
1,1,2-trichloroethane	Sample measurement	<0.00027	<0.00027	lbs.	1	Grab
	Permit requirement	0.01815	0.07205	lbs.		
Chloroethane	Sample measurement	<0.00027	<0.00027	lbs.	1	Grab
	Permit requirement	0.0624	0.16735	lbs.		
Chloroform	Sample measurement	0.00161	0.00161	lbs.	1	Grab
	Permit requirement	0.06297	0.18437	lbs.		
1,2-dichlorobenzene	Sample measurement	<0.00359	<0.00359	lbs.	1	Composite
	Permit requirement	0.11119	0.45043	lbs.		
1,3-dichlorobenzene	Sample measurement	<0.00359	<0.00359	lbs.	1	Composite
	Permit requirement	0.08055	0.21557	lbs.		
1,4-dichlorobenzene	Sample measurement	<0.00372	<0.00372	lbs.	1	Composite
	Permit requirement	0.08055	0.21557	lbs.		
1,1-dichloroethylene	Sample measurement	<0.00027	<0.00027	lbs.	1	Grab
	Permit requirement	0.01248	0.03404	lbs.		

PRETREATMENT MONITORING REPORT

Name: ALLIANCE CHEMICAL INC.
Mailing Address: 33 Avenue P, Newark, NJ 07105
Facility Location: 309 Avenue P, Newark, NJ 07105
Category and Subpart: 40 CFR 414.85 Subpart H
Outlet #: 20401080-0201
Contact Official: William Henning
Telephone #: (201) 344-2344

Monitoring Period					
10	1	95	10	31	95
Mo.	Day	Yr.	Mo.	Day	Yr.
Start			End		

For Reporting Period

	Avg.
Regulated flow-MGD	0.01611
Total flow- MGD	0.01654

Method used:

Composite sample masses were determined using total flow.
Grab sample masses were determined using total flow minus domestic flow. (Regulated flow above)
Max. flow not determined. See Attachment 1.

Parameter		Mass Limit or Concentration			No. of Samples	Sample type Comp/Grab
		Average	Maximum	Units		
1,2-transdichloroethylene	Sample measurement	<0.00054	<0.00054	lbs.	1	Grab
	Permit requirement	0.01418	0.03744	lbs.		
1,2-dichloropropane	Sample measurement	<0.00040	<0.00040	lbs.	1	Grab
	Permit requirement	0.11119	0.45043	lbs.		
1,3-dichloropropylene	Sample measurement	<0.00027	<0.00027	lbs.	1	Grab
	Permit requirement	0.11119	0.45043	lbs.		
Ethylbenzene	Sample measurement	<0.00027	<0.00027	lbs.	1	Composite
	Permit requirement	0.08055	0.21557	lbs.		
Methylene chloride	Sample measurement	<0.00040	<0.00040	lbs.	1	Composite
	Permit requirement	0.02042	0.09644	lbs.		
Methyl chloride	Sample measurement	<0.00027	<0.00027	lbs.	1	Grab
	Permit requirement	0.0624	0.16735	lbs.		
Hexachlorobutadiene	Sample measurement	<0.00359	<0.00359	lbs.	1	Grab
	Permit requirement	0.08055	0.21557	lbs.		
Nitrobenzene	Sample measurement	<0.00317	<0.00317	lbs.	1	Composite
	Permit requirement	1.26902	3.63177	lbs.		
2-nitrophenol	Sample measurement	<0.00305	<0.00305	lbs.	1	Grab
	Permit requirement	0.03687	0.13104	lbs.		
4-nitrophenol	Sample measurement	<0.00883	<0.00883	lbs.	1	Grab
	Permit requirement	0.0919	0.32676	lbs.		
4,6-dinitro-o-cresol	Sample measurement	<0.00441	<0.00441	lbs.	1	Grab
	Permit requirement	0.04425	0.15714	lbs.		
Tetrachloroethylene	Sample measurement	<0.00027	<0.00027	lbs.	1	Grab
	Permit requirement	0.0295	0.09304	lbs.		
Toluene	Sample measurement	<0.00040	<0.00040	lbs.	1	Composite
	Permit requirement	0.01588	0.04198	lbs.		
Vinyl chloride	Sample measurement	<0.00027	<0.00027	lbs.	1	Composite
	Permit requirement	0.05503	0.09757	lbs.		
Trichloroethylene	Sample measurement	<0.00027	<0.00027	lbs.	1	Composite
	Permit requirement	0.01475	0.03914	lbs.		
Total Cyanide	Sample measurement	<0.00269	<0.00269	lbs.	1	Grab
	Permit requirement	0.23826	0.68074	lbs.		
Total Lead	Sample measurement	<0.00069	<0.00069	lbs.	1	Composite
	Permit requirement	0.18153	0.39143	lbs.		
Total Zinc	Sample measurement	0.02069	0.02069	lbs.	1	Composite
	Permit requirement	0.59565	1.48062	lbs.		

841160003

CERTIFICATION

Certification of Non-use if applicable (use additional sheets)

N/A

Compliance or non compliance statement with compliance schedule (use additional sheets if necessary) for every parameter used.

We are in compliance with all parameters .

Explain method for preserving samples:

1) Explain method for preserving samples:
2) Heavy metal samples were preserved with nitric acid at a pH <1.0 .
3) Cyanide samples were preserved with caustic at a pH >12.0 .
4) VOA samples were preserved with ascorbic acid/ Hydrochloric Acid (1:1) in a 40 ml vial.
5) BNA samples were stored in a brown bottle.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

403.6(a)(2)(ii) revised by 53 FR 40610, October, 17, 1988

Richard E Braun

Signature of Principal
Executive or Authorized Agent

Richard E. Braun
Vice President of Operations
Type Name and Title

11/17/95
Date

Water volume was calculated from the sum of the readings from our compound water meter:

	METER A	METER B
ENDING	370112	8852
STARTING	369600	8852
	512	0

Total usage: 51200 Cubic Ft. = 382976
Total flow to sewers was 95% of above = 0 = 363827

Summary of flow parameters:

Total Usage				382976	=	17408	gpd
Total Flow to sewers:	382976	x 0.95	=	363827	=	16538	gpd
Total unregulated flow to sewers:	17 x 25	x 22	=	9350	=	425	gpd
Total regulated flow to sewers:	363827	- 9350	=	354477	=	16113	gpd

Composite samples were taken from total flow to sewers which includes both the regulated and unregulated (sanitary) flows. See flow diagram.

Total flow = 363827 gal. or 16538 gpd

Mass values for compounds extracted from the composite samples were calculated using the total flow.

Grab samples were taken upstream from the point of dilution with unregulated (sanitary) waste water, and represent our total flow minus the unregulated flow. See flow diagram.

Regulated flow = 363827 gal. - 9350 gal. = 354477 gal. or 16113 gpd

Mass values for compounds extracted from grab samples were calculated using the regulated flow.

The only unregulated flow in our plant consists of water used for sanitary purposes. It was determined as follows:

17 employees x 25 gal/emp. x 22 days worked = 9350 gallons

No maximum flows were determined because all data are derived from our incoming water meters on the basis of monthly readings.

NORTHEASTERN ANALYTICAL CORPORATION

ANALYTICAL DATA PACKAGE FOR:

ALLIANCE CHEMICAL
309 AVENUE P

NEWARK, NJ 07105

ATTN: BILL HENNING

Project: MONTHLY

Test Report Date: October 27, 1995

NAC Job Number: L952962

Lab Sample Number	Client Sample Designation	Collection Date
L952962-1	NAC-95-10-3-1-BNA	03-OCT-95

Ian Lambert
Laboratory Director

Signature

Certifications:

PH-0726(CT), 2035(NH), 03117(NJ), 11022(NY), 68-379(PA), 160(MD)

841160006

NORTHEASTERN ANALYTICAL CORPORATION
Test Report No. 952962
Alliance Chemical

TABLE OF CONTENTS

File: 51L\TEST\952962

LABORATORY DELIVERABLES

THIS FORM MUST BE COMPLETED BY THE LABORATORY OR ENVIRONMENTAL CONSULTANT AND ACCOMPANY ALL DATA SUBMISSIONS

The following laboratory deliverables shall be included in the data submission. All deviations from the accepted methodology and procedures or performance values outside acceptable ranges shall be summarized in the Non-Conformance Summary. The proposed "Technical Requirements for Site Remediation" rules, which appeared in the May 4, 1992 New Jersey Register, provides further details. The document shall be bound and paginated, contain a table of contents, and all pages shall be legible. Incomplete packages will be returned or held without review until the data package is completed.

It is recommended that the analytical results summary sheets listing all targeted and non-targeted compounds with the method detection limits be included in one section of the data package and in the main body of the report.

		Check if Complete
1.	Cover Page, Title Page listing Lab Certification #, facility name & address and date of report	✓
2.	Table of Contents	✓
3.	Summary Sheets listing Analytical Results for all targeted and non-targeted compounds	✓
4.	Summary Table cross-referencing field ID #'s vs. Lab ID #'s	✓
5.	Document paginated and legible.	✓
6.	Chain of Custody	✓
7.	Methodology Summary	✓
8.	Laboratory Chronicle and Holding Time Check	✓
9.	Results submitted on a dry weight basis (if applicable)	N/A
10.	Method Detection Limits	✓
11.	Lab certified by NJDEPE for parameters or appropriate category of parameters or a member of the USEPA CLP	✓
12.	Non-Conformance Summary	✓

T. [illegible]
Laboratory Director or Environmental Consultant's Signature

10/27/95
Date

841160008

NAC JOB NO. 95L-2962

GC/MS SEMI-VOLATILES ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY CHECKLIST

04

		No	Yes
1.	Chromatograms Labeled/Compounds Identified	____	✓
2.	GC/MS Tune Specifications DFTPP passed	____	✓
3.	GC/MS Tuning Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 series	____	✓
4.	GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series	____	✓
5.	GC/MS Calibration Requirements		
	a. Calibration Check Compounds	____	✓
	b. System Performance Check Compounds	____	✓
6.	Blank Contamination - If yes, list compounds and concentrations in each blank:	✓	____
	a. B/N Fraction ____		
	b. Acid Fraction ____		
7.	Surrogate Recoveries Meet Criteria	____	✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range		
	a. B/N Fraction ____		
	b. Acid Fraction ____		
	If not met, were the calculations checked and the results qualified as "estimated"?	____	____
8.	Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)	____	✓
	a. B/N Fraction ____		
	b. Acid Fraction 4-Nitrophenol MS/MSD - NR; LCS: Rec 55 - within limits		
9.	Internal Standard Area/Retention Time Shift Meet Criteria	____	____
10.	Extraction Holding Time Met	____	✓
	If not met, list number of days exceeded for each sample: ____		
11.	Analysis Holding Time Met	____	✓
	If not met, list number of days exceeded for each sample: ____		

Additional Comments: ____

Reviewed by: Dr Sylvia Zamora Date: 10-23-95

3/95: chklsms.sv

841160009

NAC NORTHEASTERN ANALYTICAL CORPORATION

CHAIN OF CUSTODY RECORD

PROJ. NO. 4499/62

PROJECT NAME

SAMPLERS: ALLIANCE Chemical INC
33 Ave P
Newark N.J. 07105
201-344-2344

Contact: William Hewins

FAX # 201-491-9397

SAMPLE	DATE	TIME	SOIL	AQ.	SAMPLE LOCATION	NO. OF CONTAINERS	CONTAINER TYPE: BNA	REMARKS
-1	10/3/95	09:30		X	24hr sampler	3	X	Sample # NAC-95-10-3-1-BNA Testing must have MDL's of 50 ppb or less. Notify us immediately if problems or MDL's cannot be achieved. Tests may be nitrite, nitrate, sulfite, sulfate in the sample. Please have results as soon as possible

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
B Calvin Hewins	10/3/95 13:00	J. Kleiner	J. Kleiner	10/3/95 16:50	[illegible] 10/3/95 16:50
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks	

84116010

NAC PRESERVATIVE CHECKLIST

TO BE COMPLETED UPON SAMPLE RECEIPT

INSTRUCTIONS:

1. Place an X in box if okay
2. Record actual pH if outside acceptable range
3. Record temperature of cooler blank or note Y/N if samples are cooled
4. Record corrective action in remarks.

SIGNATURE: _____

DATE PERFORMED: 10/9/15

pH ≤ 2											>9	≥12	°C	SAMPLES	
COD	NH_3	TKN	TOX	VOA*	PHENOL	TOC	PHC/O&G	METALS	HARD	TPO_4	SO_2	CYAN	TEMP	NAC #	REMARKS
													Y3	J962-1	

*All VOA vials received with no headspace and septum was Teflon side down, except where noted.

SPECIAL INSTRUCTIONS/NONCOMPLIANCE NOTATIONS _____

_____

84116011

NAC JOB#: L952962
SHELF#: K2

INTERNAL CHAIN OF CUSTODY
SAMPLE ALIQUOT(S)

CLIENT: ALLIANCE CHEMICAL PROJECT: MONTHLY

AQ: Parameters/Sample: |GPC CLEA 1 |SV625-AB 1

DATE	TIME	SAMPLE(S) RELINQUISHED BY	SAMPLE(S) RECEIVED BY	REASON FOR CHANGE OF CUSTODY
10/9/95	0940			SV-1
10/10/95	1045			-1 SV

REFER TO EXTERNAL COC FOR DESIGNATED SAMPLE INFORMATION

841160012

NAC EXTRACTION INTERNAL CUSTODY LOG SV 625 - GPC BATCH NO QM 2238 CL ENTRY BY ____

NAC SAMPLE #		TEST REQ.	INIT AMT g or mL	FINAL mL	EXTRACTION DATE	EXTRACTION INIT	CONC. DATE	CONC. INIT	CLN UP	SURR mL	COMMENTS 625 BN/AF SPIKE mL	CONC	LOT #
QBLKF1	BLK	ABN	1000	2.0	10.10.05	RF	10.16.05	PN		1.0			
29621	MS	↓	1000	2.0	↓	↓	↓	↓		1.0	1.0	100/100	090295 LMS
	MSD												
QCSPK1	LCS	ABN	1000	2.0	10.10.05	RF	10.16.05	PN		1.0	1.0	100/100	090295 LMS
1 29621		↓	1000	2.0	↓	↓	↓	↓		1.0			
3020-2		ABN	1000 RF		10.12.05	RF				1.0	used 100mls of sample; matrix [illegible]		
3020-2R		ABN	100	~~2.0~~ 1.0	10.12.05	RF	10.18.05	PN		1.0	~~[illegible]~~		

		TEST REQ.	INIT AMT	FINAL mL	EXTRACTION DATE	EXTRACTION INIT	CONC. DATE	CONC. INIT	CLN UP	SURR mL	COMMENTS
Blank 2		ABN	1000		10.12.05	RF				1.0	
Blank 3	R	ABN	1000	1.0	10.12.05	RF	10.18.05	PN		1.0	~~[illegible]~~
Blank 4											
Blank 5											
Blank 6											

RELINQUISHED BY	RECEIVED BY	DATE	TIME	REASON
D [illegible]	[illegible]	10.16.05	16:[illegible]	BN, ms [illegible]
D [illegible]	[illegible]	10.18.05	16:[illegible]	ms 3, 3

Method: SEPF. ____ CONT. ✓ SONC. ____

Surr: ACID: ✓ BN: ✓ DCB/TCX: ____ OTP: ____ DCAA: ____

SS Lot # 051095 LMS

SS Conc. BN @ 100 µg/mL AF @ 150 µg/mL

841160013

NORTHEASTERN ANALYTICAL CORPORATION
Test Report No.: L952962
ALLIANCE CHEMICAL

METHODOLOGY REVIEW

SV625-ABN	Aqueous	625

All of the above methods are referenced in one of the publications listed below.

1. "Methods for Chemical Analysis of Water and Wastes", EPA/600/4-79/020 Revised March 1983
2. Code of Federal Regulations, Title 40, Part 136
3. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd Edition
4. "Standard Methods for the Examination of Water and Wastewater", 14th,15th and 18th Editions
5. "Methods for the Determination of Metals in Environmental Samples" EPA/600/4-91/010
6. "Methods for the Determination of Organic Compounds in Drinking Water" EPA-600/4-88/039
7. "Annual Book of ASTM Standards" Section 11 - Water
8. Code of Federal Regulations, Title 40, Part 261, "Appendix II-Method 1311, Toxicity Characteristic Leaching Procedure (TCLP)", June 29, 1990. Revised 11/24/92.
9. USEPA Contract Laboratory Program, Statement of Work for Organic Analysis Multi-media, Multi-concentration, No. OLM01.8, Statement of Work for Inorganics Analysis, Multi-media, Multi-concentration, No. ILM03.0

NAC NORTHEASTERN ANALYTICAL CORPORATION

The following is a list of symbols and/or abbreviations which may be found in NAC reports.

Symbols	Description
U	Analyte is not detected above the method detection limit
ND	Analyte is not detected above the method detection limit
<	Analyte is present in the sample at an amount less than the reported result
>	Analyte is present in the sample at an amount greater than the reported result
MDL	Method Detection Limit
RDL	Report Detection Limit
PQL	Practical Quantitation Limit
TNTC	Coliform growth is too numerous to count (above 200)
dw	Dry Weight
B	Analyte is present in the associated method blank
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
RSD	Relative % Standard Deviation
CF	Calibration Factor
MI	Matrix Interference
HA	High Analyte
J	Estimated Value
D	Standard spike or surrogate diluted out
<=	Less than or equal to
>=	Greater than or equal to
N/A	Not Applicable

NAC LABORATORY CHRONICLE

PRODUCT	L952962-1 NAC-95-10-3-1-BNA									
COLL./RECV DATES	03-OCT-95 03-OCT-95									
	EXTRACT	ANALYSIS	EXTRACT	ANALYSIS	EXTRACT	ANALYSIS	EXTRACT	ANALYSIS	EXTRACT	ANALYSIS
GPC CLEAN-UP	10-OCT-95	16-OCT-95								
SV625-ABN	10-OCT-95	16-OCT-95								

NA - Not applicable (Analysis not performed on that sample)

* - Number of holdtimes missed: 0

ORGANIC RESULTS SUMMARY SECTION

NORTHEASTERN ANALYTICAL CORPORATION

REPORT OF RESULTS FOR:
GPC CLEAN-UP

Client: ALLIANCE CHEMICAL
Date Sampled: 03-OCT-95

NAC Job Number: L952962
Date Received: 03-OCT-95

Client ID: NAC-95-10-3-1-BNA
Lab Sample ID: L952962-1

Percent Solids: NA

PARAMETER	RESULT	MDL	QUAL	UNITS	DIL'N
N-Nitrosodimethylamine	ND	100		ug/l	10
Phenol	ND	30		ug/l	10
bis(2-Chloroethyl)Ether	ND	28		ug/l	10
2-Chlorophenol	ND	28		ug/l	10
1,3-Dichlorobenzene	ND	26		ug/l	10
1,4-Dichlorobenzene	ND	27		ug/l	10
1,2-Dichlorobenzene	ND	26		ug/l	10
bis(2-Chloroisopropyl)Ether	ND	29		ug/l	10
N-Nitroso-di-n-Propylamine	ND	25		ug/l	10
Hexachloroethane	ND	23		ug/l	10
Nitrobenzene	ND	23		ug/l	10
Isophorone	ND	26		ug/l	10
2-Nitrophenol	ND	22		ug/l	10
2,4-Dimethylphenol	ND	22		ug/l	10
bis(-2-Chloroethoxy)Methane	ND	26		ug/l	10
2,4-Dichlorophenol	ND	23		ug/l	10
1,2,4-Trichlorobenzene	ND	25		ug/l	10
Naphthalene	ND	29		ug/l	10
Hexachlorobutadiene	ND	26		ug/l	10
4-Chloro-3-Methylphenol	ND	27		ug/l	10
Hexachlorocyclopentadiene	ND	100		ug/l	10
2,4,6-Trichlorophenol	ND	29		ug/l	10
2-Chloronaphthalene	ND	30		ug/l	10
Dimethylphthalate	ND	20		ug/l	10
Acenaphthylene	ND	24		ug/l	10
Acenaphthene	ND	27		ug/l	10
2,4-Dinitrophenol	ND	14		ug/l	10
4-Nitrophenol	ND	64		ug/l	10
2,4-Dinitrotoluene	ND	31		ug/l	10
2,6-Dinitrotoluene	ND	28		ug/l	10
Diethylphthalate	ND	13		ug/l	10
4-Chlorophenyl-phenylether	ND	25		ug/l	10
Fluorene	ND	26		ug/l	10
4,6-Dinitro-2-methylphenol	ND	32		ug/l	10
N-Nitrosodiphenylamine	ND	26		ug/l	10
1,2-diphenylhydrazine	ND	32		ug/l	10
4-Bromophenyl-phenylether	ND	30		ug/l	10
Hexachlorobenzene	ND	31		ug/l	10
Pentachlorophenol	ND	39		ug/l	10
Phenanthrene	ND	21		ug/l	10

Extraction Date: 10-OCT-95
Analysis Date: 16-OCT-95

NORTHEASTERN ANALYTICAL CORPORATION

REPORT OF RESULTS FOR:
GPC CLEAN-UP

Client: ALLIANCE CHEMICAL
Date Sampled: 03-OCT-95

NAC Job Number: L952962
Date Received: 03-OCT-95

Client ID: NAC-95-10-3-1-BNA
Lab Sample ID: L952962-1

Percent Solids: NA

PARAMETER	RESULT	MDL	QUAL	UNITS	DIL'N
Anthracene	ND	19		ug/l	10
Di-n-Butylphthalate	ND	20		ug/l	10
Fluoranthene	ND	26		ug/l	10
Benzidine	ND	100		ug/l	10
Pyrene	ND	59		ug/l	10
Butylbenzylphthalate	ND	35		ug/l	10
3,3'-Dichlorobenzidine	ND	40		ug/l	10
Benzo(A)Anthracene	ND	30		ug/l	10
Bis(2-Ethylhexyl)Phthalate	ND	34		ug/l	10
Chrysene	ND	29		ug/l	10
Di-n-cctylphthalate	ND	38		ug/l	10
Benzo(B) Fluoranthene	ND	29		ug/l	10
Benzo (K) Fluoranthene	ND	26		ug/l	10
Benzo(A) Pyrene	ND	25		ug/l	10
Indeno(1,2,3-Cd) Pyrene	ND	37		ug/l	10
Dibenzo(A,H) Anthracene	ND	28		ug/l	10
Benzo(G,H,I)Perylene	ND	25		ug/l	10

Extraction Date: 10-OCT-95
Analysis Date: 16-OCT-95

841160019

ANALab INC. 205 Campus Plaza 1 Raritan Center, Edison NJ 08837 Tel (908) 225-4111 Fax (908) 225-4110

OCTOBER 21, 1995

ALLIANCE CHEMICAL, INC.
33 AVE. P
NEWARK, NJ 07105
Attn: WILLIAM HENNING

Analytical Report: 95-10-0026 Project: NA

This technical report contains the analytical results of six (6) samples submitted to Analab on October 3, 1995. The following analyses were requested:

VOALTILE ORGANICS (624) - GC/MS (1)
VOALTILE ORGANICS (624) (TRIP BLANK) (1)
LEAD (1)
ZINC (1)
TOTAL CYANIDE (1)
TOTAL SUSPENDED SOLIDS (1)
BIOCHEMICAL OXYGEN DEMAND (1)

Respectfully submitted,

Robert F. Hulit
Manager of Laboratory Services

RH/lw

840990001

ANALab INC. 205 Campus Plaza 1, Raritan Center Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

95-10-0030

LABORATORY DELIVERABLES CHECKLIST

THIS FORM HAS BEEN COMPLETED BY THE LABORATORY AND IS AVAILABLE TO THE ENVIRONMENTAL CONSULTANT TO ACCOMPANY ALL DATA SUBMISSIONS

The following laboratory deliverables are included in this Analytical Report. Any deviations from the accepted methodology and procedures, or performance values outside acceptable ranges are summarized in the Non-Conformance Summary.

I.	Report Cover Page, Laboratory Certification and Field Sample to Lab Sample ID Cross Reference	✓
II.	Table of Contents	✓
III.	Chain of Custody Documents	✓
IV.	Methodology Summaries	✓
V.	Laboratory Chronicle and Hold Time Checks	✓
VI.	Non-Conformance Summary	✓
VII.	Tabulated Analytical Results	✓
VIII.	Initial and Continuing Calibration Information	✓
IX.	Tune and Internal Standard Area Summaries (GC/MS)	✓
X.	Quality Control Summary Reports	✓
XI.	Surrogate Recovery Summary	✓
XII.	Raw Data Chromatograms, Blank, QCs and Samples	✓
XIII.	Subsidiary Information (Subcontract if applicable)	✓

Janet Josh
Laboratory Manager or QA/QC Coordinator

10-24-95
Date

A:\QCCLST
1/93

840990002

ANALab INC. 205 Campus Plaza 1 Raritan Center Edison NJ 08837 Tel (908) 225-4111 Fax (908) 225-4110

ANALYTICAL DATA REPORT PACKAGE
ALLIANCE CHEMICAL INC
33 AVENUE P,
NEWARK,NJ 07105

CLIENT PROJECT:N/A
SAMPLE(s) RECEIVED DATE:10/03/95 **PROJECT:N/A**

SAMPLE ID	SAMPLE DESCRIPTION/LOCATION	SAMPLE DATE/TIME
95-10-0026-001	A-95-10-3-1-CN	10/3/95 ; 09:30
95-10-0026-002	A-95-10-3-2-VOA	10/3/95 ; 09:30
95-10-0026-003	TRIP BLANK	10/2/95 ; N/A
95-10-0026-004	A-95-10-3-4-ZN PB	10/3/95 ; 09:30
95-10-0026-005	A-95-10-3-5-TSS	10/3/95 ; 09:30
95-10-0026-006	A-95-10-3-6-BOD	10/3/95 ; 09:30

LABORATORY CERTIFICATION NUMBERS
NJDEP ID:12531 MADEQE ID:NJ302 VADGS ID:00007 NYDOH:11104
NHDES ID:250492-A,B CTDHS ID:PH-0649 MDDHMH ID:186

DEANNE SLOUGHFY/FRED KHALIL
QUALITY CONTROL COORDINATOR

ROBERT F. HULIT
MANAGER OF LABORATORY SERVICES

COMMENTS:
NA = NOT AVAILABLE FROM CHAIN OF CUSTODY / NOT APPLICABLE

ANALab INC. 205 Campus Plaza 1, Raritan Center Edison, NJ 08837 Tel: (908) 225-4111 Fax: (908) 225-4110

TABLE OF CONTENTS

PROJECT NUMBER: 95-10-0026

ANA Lab INC. 205 Campus Plaza 1, Raritan Center Edison, NJ 08837 Tel (908) 225-4111 Fax (908) 225-4110

CHAIN OF CUSTODY RECORDS

001

ANALab INC.

205 Campus Plaza 1, Raritan Center, Edison, New Jersey 08837 (908) 225-4111
ENVIRONMENTAL ANALYTICAL LABORATORY SERVICES FAX (908) 225-4110

CHAIN-OF-CUSTODY RECORD and Work Authorization

LAB SDG NO.: (FOR LAB USE ONLY) 95-10-26

Company: Alliance Chemical Inc.
Address: 33 Ave F
City: Newark
State: N.J. ZIP: 07105 Phone: 201-344-3344
Project Manager: William Henning Fax: 201-491-9299
Project name: Purchase Order No.:

ANALYSIS REQUESTED: Cyanide, VOA, TripBlank VOA, Zinc-Lead, TSS, BOD

PRINT ANALYSIS REQUESTS CLEARLY, LEGIBLY AND COMPLETELY. Page 1 of 1

	SAMPLE DESCRIPTION	TYPE GRAB	TYPE COMP	MATRIX TYPE	DATE SAMPLED	TIME	PRES	NO. CONT	REMARKS
1.	A-95-10-3-1-CN	X		H_2O	10/3/95	01:30	X	1	
2.	A-95-10-3-2-VOA	X		H_2O	10/3/95	04:30	X	2	2 Vog's
3.	A-95-10-3-3-TripBlkVOA				10/3/95			2	2 Vog's
4.	A-95-10-3-4-ZnPb		X	H_2O	10/3/95	09:30	X	1	1-LITER
5.	A-95-10-3-5-TSS		X	H_2O	10/3/95	09:30		1	1-500 ML
6.	A-95-10-3-6-BOD		X	H_2O	10/3/95	09:30		1	1-LITER

FAILURE TO PRINT CLEARLY, LEGIBLY AND COMPLETELY MAY RESULT IN DELAYS. ANY ANALYSIS REQUEST NOT ENTERED COMPLETELY, CLEARLY AND LEGIBLY OR WHICH IS CONFUSING OR AMBIGUOUS MAY RESULT IN DELAYS. SAMPLES CAN NOT BE LOGGED IN AND THE TURNAROUND TIME CLOCK WILL NOT START UNTIL ANY AMBIGUITIES ARE RESOLVED. TO AVOID THIS, PRINT CLEARLY, LEGIBLY AND COMPLETELY. Richard Adamkiewicz

SAMPLER/SUBMITTER'S STATEMENT: I attest that the proper field sampling procedures were used during the collection of these samples and that the information on this Chain of Custody and the analysis(es) requested are true and correct. Name (print): Signature:

RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	RELINQUISHED TO LABORATORY BY:	ACCEPTED FOR LAB BY:	DATE	TIME
R Adamkiewicz	Donna Miller	10/3/95	13:30	Donna Miller		10/3/95	4:10

Turnaround Time (Faxables)

24Hour____ 5 Day____
48 Hour____ 10 Day____
72 Hour____ 14 Day____

If other than 14 day contact your project manager for authorization number.

Auth No: _____

Laboratory Comments

All Samples Received
Temp 3.8 'C Cool (Yes) No
Samples Intact (Yes) No
Properly Preserved (Yes) No

Data Deliverables (Standard T.A.T. Hard Copy)

Results only____
Results with QC ____
RTD-4____
FTD-2____

If other than standard turnaround time for hard copy, please indicate in client remarks.

Client Remarks:

Use minimum dilution. VOA's must have BDL's of <20ppb. If samples must be diluted of if there is interference. STOP! Do not run sample. Notify Alliance immediately.
Cyanide testing. NOTE: Samples contain significant amounts of Nitrite, Nitrate, Sulfite, Sulfate. Samples must be treated with higher amounts of reagents to remove interference.
Send one bound and two unbound copies of results.

84099006

ANALab

CHANGE OF WORK ORDER

Date of Contact	ANALab PROJECT No.
Oct. 5, 1995	95-10-026

Client Name: Alliance Chem.

Contact Person: Internal

REMARKS

VOA = 624

* Read Client Remarks about MDL and dilutions

CHANGES REQUESTED

ANALAB SAMPLE ID	CLIENT ID	TEST CHANGE REQUESTED /ADDED /DELETED
1		CN
2-3		624
4		Zn, Pb
5		TSS
6		BOD

003

Person Completing this form: [signature] DATE: 10/5/95

THIS DOCUMENT IS ENCLOSED TO REFLECT ANY CHANGES THAT HAVE OCCURRED SINCE THE ORGINAL CHAIN OF CUSTODY WAS SIGNED.

840990007

ANALab INC. 205 Campous Plaza 1, Raritan Center, Edison NJ 08837 Tel (908) 225-4111 Fax (908) 225-4110

METHOD SUMMARIES

ANALab INC. 205 Campus Plaza 1 Raritan Center Edison, NJ 08837 Tel (908) 225-4111 Fax (908) 225-4110

METHODOLOGY SUMMARY

PARAMETER	REFERENCES
Alumina Column Cleanup and Separation of Petroleum Wastes	Test Methods for Evaluating Solid Wastes: Vol. IB, USEPA SW-846, 1986, Method 3611.
Volatile Organics (GC/MS)	Test Methods for Evaluating Solid Wastes: Vol. 1B, USEPA SW-846, 1986, Method 8240. Test Methods for Evaluating Solid Wastes Physical/Chemical Methods: 2nd ed., USEPA SW-846, 1982, Methods 5020 and 5030. Title 40 CFR Part 136 " Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act, Method 624", July 1, 1988. USEPA Contact Laboratory Program (CLP) Statement of Work for Organics Analysis, 9/88.
Semi-Volatile Organics (GC/MS)	Test Methods for Evaluating Solid Wastes Physical/Chemical Methods: 2nd ed., USEPA SW-846, 1982, Method 8270. Test Methods for Evaluating Solid Wastes: Vol. 1B, USEPA SW-846, 1986, Method 3550. Title 40 CFR Part 136 " Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act, Method 625", July 1, 1988. USEPA Contact Laboratory Program (CLP) Statement of Work for Organic Analysis, 9/88.
Volatile Aromatics (GC)	Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater: USEPA 600/4-81-057, 1981, Method 503.1. Title 40 CFR Part 136 " Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act, Method 602", July 1, 1988.
TCLP (Toxicity Characteristics Leachate Procedure)	Title 40 CFR Part 261 "Hazardous Waste Management System: Identification and Listing of Hazardous Waste; Toxicity Characteristics Revisions: Final Rule", June 29, 1990.
Percent Solids	Methods for Chemical Analysis of Water and Wastes: USEPA 600/4-79-020, 1983, Method 160.3. Standard Methods for the Examination of Water and Wastewater, 16th ed., pp. 92-94, Method 209A, (1985).

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840990009

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837 Tel (908) 225-4111 Fax (908) 225-4110

METHODOLOGY SUMMARY

Metals	Methods of Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Section 200. Standard Methods for the Examination of Water and Wastewater, 16th ed., pp. 148-179, Methods 302A through D, 303A through F, and 304, (1985). Test Methods for Evaluating Solid Wastes; Vol. 1A USEPA SW-846, 1986, Chapters 3.2 and 3.3. Title 40 CFR Part 141 " National Primary Drinking Water Regulation, Section 141.23", July 1, 1988.
TCLP (Toxicity Characteristics Leachate Procedure)	Title 40 CFR Part 261 "Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Toxicity Characteristics Revisions; Final Rule", June 29, 1990.
E.P. TOXICITY METALS	Test Methods for Evaluating Solid Wastes; Vol. 1A USEPA SW-846, 1986, Method 1310.
Hexavalent Chromium	Test Methods for Evaluating Solid Wastes; 2nd.ed., USEPA SW-846, Method 3060.

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840990010

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METHODOLOGY SUMMARY

PARAMETER	REFERENCES
Percent Solids/ Percent Moisture	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 160.3. Standard Methods for the Examination of Water and Wastewater, 16th ed., pp. 92-94, Method 209A, (1985).
Total Dissolved Solids (TDS)	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 160.1.
Total Suspended Solids (TSS) ✓	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 160.2.
Total Petroleum Hydrocarbons (Spectrophotometric, Infrared)	Methods for Chemical Analysis of Water and Wastes: USEPA 600/4-79-200, 1983, Method 418.1. Standard Methods for the Examination of Water and Wastewater: 16th ed., pp. 501-502, Method 503E, (1985). Test Methods for Evaluating Solid Waste Physical/Chemical Methods: 2nd ed/, Vol. IC, USEPA SW-846, 1986, Method 3540.
Oil and Grease (Spectrophotometric, Infrared)	Methods for Chemical Analysis of Water and Wastes: IC, USEPA 600/4-79-200, 1983, Method 413.1. Standard for Methods for the Examination of Water and Wastewater: 16th ed., pp. 498-500, Method 503B and C, (1985). Test Methods for Evaluating Solid Waste Physical/Chemical Methods: 2nd ed., Vol. IC, USEPA SW-846, 1986, Method 3540.
Oil and Grease (Gravimetric)	Methods for Chemical Analysis of Water and Wastes: USEPA 600/4-79-200, 1983, Method 413.1. Standard Methods for the Examination of Water and Wastewater: 16th ed., pp.496-498, Method 503A and B, (1985).
Corrosivity by pH	Test Method for Evaluating Solid Wastes: Vol. IC, USEPA SW-846, 1986, Method 9040.
Paint Filter Liquids Test	Test Methods for Evaluating Solid Waste: Physical/Chemical Methods; 3rd ed., Vol IC, USEPA SW-846, 1986, Method 9095.
Specific Conductance	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 415.1.
Total Organic Carbon (TOC)	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 415.1.

007

840990011

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837 Tel. (908) 225-4111 Fax (908) 225-4110

METHODOLOGY SUMMARY

INORGANIC PARAMETER	REFERENCES
Total Cyanide/ Amenable Cyanide	Methods of Chemical Analysis of Water and Wastes: USEPA 600/4-79-200, 1983, Method 335.2. Standard Methods for the Examination of Water and Wastewater, 16th ed., pp. 327-338, Methods 512A through D, (1985). Test Methods for Evaluating Solid Wastes Physical/ Chemical Methods: 3rd ed., USEPA SW-846, 1987, Method 9010.
Reactive Cyanide	Test Methods for Evaluating Solid Wastes Physical/ Chemical Methods: 3rd ed., USEPA SW-846, 1987, Chapter 7, Method 7.3.3.2.
Reactive Sulfide	Test Methods for Evaluating Solid Wastes Physical/ Chemical Methods: 3rd ed., USEPA SW-846, 1987, Chapter 7, Method 7.3.4.2.
Phenols	Methods of Chemical Analysis of Water and Wastes: USEPA 600/4-79-200, 1983, Method 335.2. Standard Methods for the Examination of Water and Wastewater, 16th ed., pp. 557-558, Methods 510A through C, (1985).
Flashpoint	Test Methods for Evaluating Solid Wastes: Vol. IC, USEPA SW-846, 1986, Method 1020.
RCRA Ignitability	Test Methods for Evaluating Solid Wastes: Vol. IC, USEPA SW-846, 1986, Method 1020. Test Methods for Evaluating Solid Wastes: Vol. IC, USEPA SW-846, 1986, Chapter 7, Sect. 7.1.2.A.2.

005

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ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837 Tel (908) 225-4111 Fax (908) 225-4110

METHODOLOGY SUMMARY

PARAMETER	REFERENCES
Biochemical Oxygen Demand(BOD) ✓	Standard Methods 16th ed., Methods for the Examination of Water and Wastewater, 16th ed., pp. Method 421F, pp. 525-532, Method (1985).
Chemical Oxygen Demand (COD)	Standard Methods 16th ed., Methods for the Examination of Water and Wastewater, 16th ed., pp. 533-535, Method 508A, (1985). Hach Handbook, Method 8000, Titrimetrinetric Method.
Total Organic Carbon (TOC)	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 415.1.
Nitrate Nitrogen (NO3-N)	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 352.1.
Chloride (Cl)	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 325.3.
Fluoride (F)	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 340.2.
Alkalinity (ALK)	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 310.1.
Specific Conductance	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 415.1.

Asbestos	EPA 600-M4-82-020(LM)	Ammonia Nitrogen	EPA 350.3
Bromide	SM 405	Color(Pt/Co units)	EPA 110.2
Iodine	EPA 345.1	Fecal Coliforms	EPA 78, P 124
Total Coliform	EPA 78, P 108	MBAS/LAS	EPA 425.1
Nitrate	EPA 352.1	Nitrate (NO 2)	EPA 354.1
Ortho-Phosphate	EPA 365.1	Phenolics	EPA 420.1
Phosphorus (all forms)	EPA 365.2	Sulfate	EPA 375.3
Sulfide	EPA 376.2	Sulfite	SM 428a
Turbidity	EPA 180.1	TKN, Org, N 2, (dist/probe)	EPA 351.4
Total Hardness	EPA 130.2	Total Organic Halides	ASTM 2015
Total Solids	EPA 160.3	Total Volatile Solids	EPA 160.4

EPA= Methods for Chemical Analysis of Water and Waste; USEPA 600/4-79-200, 1983.
EPA= Micro Biological Methods for Monitoring the Environment, 1978
EPA= Asbestos Methods-USEPA 600-M4-82-020, DEC. 1982.
SM17= Standard Methods for the Examination of Water and Waste Water, 17TH ed., 1989
SM= Standard Methods for the Examination of Water and Waste Water, 16TH ed..

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LABORATORY CHRONICLE

010

840990014

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837 Tel (908) 225-4111 Fax (908) 225-4110

LABORATORY CHRONICLE

CLIENT: ALLIANCE CHEMICAL, INC.

REPORT NO.: 95-10-0026

SAMPLING DATE: 10/2,3/95

DATE RECEIVED BY LABORATORY: 10/3/95

LAB SAMPLE ID	EXTRACTION DATE	CLIENT SAMPLE DESIGNATION	PARAMETER	DATE ANALYZED	ANALYST
95-10-0026-2	NA	A-95-10-3-2-VOA	VOA(624)	10/11/95	JJ,MRP
95-10-0026-3	"	A-95-10-3-3-TRIP BLANK	"	"	"

FORM 99
RE/lw

011

840990015

ANALAB INC. 205 Campus Plaza 1 Raritan Center Edison NJ 08837 Tel (908) 225-4111 Fax (908) 225-4110

LABORATORY CHRONICLE
TRACE METALS

CLIENT: ALLIANCE CHEMICAL INC
CLIENT PROJECT: N/A

DATE RECEIVED: 10/03/95

LABORATORY SAMPLE ID	SAMPLE DESCRIPTION/LOCATION	SAMPLING DATE	DIGESTION DATE	DATE ANALYZED	ANALYST
95-10-0026-004	A-95-10-3-4-ZN PB	10/3/95	10/6/95	10/9,10/95	RS/DR

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837 Tel (908) 225-4111, Fax (908) 225-4110

LABORATORY CHRONICLE
TOTAL CYANIDE

CLIENT: ALLIANCE CHEMICAL INC
CLIENT PROJECT:N/A

DATE RECEIVED:10/03/95

LABORATORY SAMPLE ID	SAMPLE DESCRIPTION/LOCATION	SAMPLING DATE	EXTRACTION DATE	DATE ANALYZED	ANALYST
95-10-0026-001	A-95-10-3-1-CN	10/3/95	10/10/95	10/10/95	EG

lc110

ANALAB INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel (908) 225-4111, Fax (908) 225-4110

LABORATORY CHRONICLE
TOTAL SUSPENDED SOLIDS

CLIENT: ALLIANCE CHEMICAL INC
CLIENT PROJECT:N/A

DATE RECEIVED:10/03/95

LABORATORY SAMPLE ID	SAMPLE DESCRIPTION/LOCATION	SAMPLING DATE	EXTRACTION DATE	DATE ANALYZED	ANALYST
5-10-0026-005	A-95-10-3-5-TSS	10/3/95	N/A	10/4/95	SR

:2

ANALab INC. 205 Campus Plaza 1 Raritan Center, Edison, NJ 08837 Tel (908) 225-4111, Fax (908) 225-4110

LABORATORY CHRONICLE
BIOCHEMICAL OXYGEN DEMAND

CLIENT: ALLIANCE CHEMICAL INC
CLIENT PROJECT:N/A

DATE RECEIVED:10/03/95

LABORATORY SAMPLE ID	SAMPLE DESCRIPTION/LOCATION	SAMPLING DATE	EXTRACTION DATE	DATE ANALYZED	ANALYST
95-10-0026-006	A-95-10-3-6-200	10/3/95	N/A	10/4/95	EG

123

ANALAB INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

SAMPLE MANAGEMENT LABORATORY CHRONICLE

CLIENT NAME: Allied Chem. Inc.
LAB PROJECT ID: 95-10-26

CLIENT PROJECT: N/A
RAS # :
SAMPLE TEMP ON RECEIPT: 3.8

SAMPLE DATE(S): 10/3/95
SAMPLE RECEIVE DATE: 10/3/95

SAMPLE MATRIX: (H2O) SOIL;
ANALAB COOLER ID #: N/A

CONDITION OF SAMPLES RECEIVED BY LAB:	NA	YES	NO	COMMENTS
Cooler Seal Intact	NA	(YES)	NO	
Samples Received Cool (2-6'C)	NA	(YES)	NO	
Samples Received Intact		(YES)	NO	
Sample Labels Match Chain of Custody		(YES)	NO	
VOAs HCL Preserved as per Label or Custody	NA	(YES)	NO	
VOAs w/out Bubbles, Septa TFE Side Down	NA	(YES)	NO	
Samples Delivered via ANALAB PICK UP	NA	(YES)	NO	
Samples Delivered via CLIENT DROP OFF	NA	YES	(NO)	
Airbill # Present, if by Common Carrier	NA	YES	(NO)	
Traffic Reports Present, if applicable	NA	YES	(NO)	
Subcontract Analysis Required (Sub COC)		YES	(NO)	

*PRESERVATION CHECKS PERFORMED FOR AQUEOUS SAMPLES NEEDING PH ADJUSTM

N/A = IF NOT APPLICABLE

LAB SAMPLE	FRACTION	PH MEASURED	OK	COMMENTS BY SM ON RECE
001	CN	≥12	✓	WCOA

Note: NA = Not Applicable or Not Available from Chain of Custody
Temprature taken on receipt from Temprature Surrogate Vial

840990020

Sample Custodian Signature 016 Date 10/3/95

ANA Lab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837 Tel (908) 225-4111 Fax (908) 225-4110

CASE NARRATIVE / NONCONFORMANCE SUMMARY

ANA [illegible]

95-10-0026

GC/MS ANALYSIS CONFORMANCE/ NON-CONFORMANCE SUMMARY

	NO	YES
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks)	____	X
2. GC/MS Tune Specifications		
a. BFB Meet Criteria	____	X
b. DFTPP Meet Criteria	____	NA
3. GC/MS Tune Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 series.	____	X
4. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series	____	X
5. GC/MS Calibration Requirements		
a. Calibration Check Compounds	____	NA
b. System Performance Check Compounds	____	NA
6. Blank Free of Contaminiation, If Not, then list the Compounds and Concentration in each	____	X

a. VOA Fraction _____
b. B/N Fraction _____
c. Acid Fraction _____

7. Surrogate Recoveries Meet Criteria	____	X

If not met, list those compounds and their recoveries which fall outside the acceptable range:

a. VOA Fraction _____
b. B/N Fraction _____
c. Acid Fraction _____

If not met, were the calculations checked and the results qualified as "estimated" ?	____	____
8. Matrix Spike/ Matrix Spike Duplicate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)	____	X

a. VOA Fraction _____
b. B/N Fraction _____
c. Acid Fraction _____

01S

GC/MS ANALYSIS CONFORMANCE/NONCONFORMANCE SUMMARY (CONTINUED)

	NO	YES
9. Internal Standard Area/Retention Time Shift Meet Criteria		X

Comments:

	NO	YES
10. Extraction Holding Time Met		NA

If not met, list number of days exceeded for each sample:

	NO	YES
11. Analysis Holding Time Met:		X

If not met, list number of days exceeded for each sample:

Additional Comments [illegible] = 10-02-95. [illegible] = 50% RSD

QA Coordinator(s) : [signature] Date: 10-26-95

ANALab INC. 205 Campus Plaza 1, Raritan Center Edison, NJ 08837, Tel. (908) 225-4111, Fax (908) 225-4110

METALS ANALYSIS CONFORMANCE / NONCONFORMANCE SUMMARY

95 - 10 - 026

		No	Yes
1.	Initial Calibration Summary Meets criteria	___	X
2.	Continuing Calibration Summary Meets Criteria	___	X
3.	ICP Interference Check Sample Results Summary submitted (if applicable) / Meets Criteria	___	NA
4.	Serial Dilution Summary Submitted (if applicable)	___	___
5.	Laboratory Control Sample (LCS) (QC Blank Spike) summary submitted, recoveries within limits.	___	X
6.	Method Blank (Prep Blank) Free of Contamination if not, list compounds and concentration.	___	X
7.	Matrix Spike / Matrix Spike Duplicate Recoveries meet criteria. If not, list the compounds and the recoveries which are outside QC Limits.	___	X
8.	Extraction (Digestion) Holding Time Met If not, List samples and number of days exceeded.	___	X
9.	Analysis Holding Time Met. If not, List samples and number of days exceeded.	___	X
10.	Additional Comments:		

Lab or QC Coordinator: Janice Fisher Date: 10-24-95

A:\AANCS Rev.6/94

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ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837 Tel (908) 225-4111, Fax (908) 225-4110

WET CHEMISTRY ANALYSIS CONFORMANCE / NON-CONFORMANCE SUMMARY

PROJECT ID: 95-10-0026

TEST PARAMETER: BOD, TSS, TKN.

		No	Yes
1.	All Results Reported and in the appropriate units	___	✓
2.	Initial and Continuing Calibration Summaries present for all applicable Wet Chemistry Analysis.	___	N/A
3.	Calibration - Initial Calibration performed within 90 days before sample analysis and continuing calibration performed on the day of analysis.	___	✓
4.	Continuing Calibration Requirements Met	___	✓
5.	Blank Free of Contamination: (eg. <MDL) If not then list compounds and the amounts present at or above the reported MDL. _____	___	✓
6.	Extraction Hold Time Met. Comments: _____	___	✓
7.	Analysis Hold Time Met. Comments: _____	___	✓
8.	Matrix Spike / Matrix Spike Duplicate Recoveries and % RPD's meet Criteria. If not, list compounds and recoveries outside of QC limits. _____	___	✓
9.	QC Blank Spike (QC Check Sample) Analysis Recovery within QC Limits	___	✓

Additional Comments: NONE.

Lab or QC Coordinator: _____ Date: 10/24/95

Q&A A:\QCWCNCS

021

840990025

ANALab INC. 205 Campus Plaza 1 Raritan Center Edison, NJ 08837 Tel: (908) 225-4111 Fax: (908) 225-4110

TABULATED ANALYTICAL RESULTS

GC/MS VOLATILE ORGANICS

ANALab INC. 205 Campus Plaza I Raritan Center Edison, NJ 08837 Tel (908) 225-4111 Fax (908) 225-4110

ANALYTICAL REPORT FLAGS:

U Compound was analyzed but not detected. The number proceeding the analytical flag "U" is the minimum attainable detection limit for the sample.

J Compound was detected but below the Method Detected Limits (MDL). Quantitation is approximate.

B Compound was found to be present in the Method Blank.

E Compound concentration exceeded the calibration range of the GC/MS instrument. Secondary dilution was required.

D Compound was identified in the analysis at a secondary dilution factor.

BMDL Compound was detected but below the Method Detection Limit (MDL). Quantitation is approximate.

Compounds detected for Soil/Solid Analysis are reported on a dry weight basis.

ANA Lab INC. 205 Campus Plaza 1 Raritan Center Edison, NJ 08837 Tel (908) 225-4111 Fax (908) 225-4110

Method 624 Volatile Organics By GC/MS - Aqueous matrix

CLIENT :	ALLIANCE CHEMICAL I	LAB SAMPLE ID :	95-10-026-2
SAMPLE ID:	A-95-10-3-2-VOA	DATE SAMPLED:	10/3/95
PROJECT:	N/A	DATE RECEIVED:	10/03/95
SAMPLE VOL. :	5.0ML	DATE ANALYZED:	10/11/95
DATA FILE :	>C4125	DIL. FACT :	1.00
EXTRACT/DATE :	N/A	ANALYST:	CN/MRP
NJDEP LAB ID :	12531		

CAS #	COMPOUND	UG/L	Q	MDL
74-87-3	CHLOROMETHANE	U		2
74-83-9	BROMOMETHANE	U		2
75-01-4	VINYL CHLORIDE	U		2
75-00-3	CHLOROETHANE	U		2
75-09-2	METHYLENE CHLORIDE	U		3
75-69-4	TRICHLOROFLUOROMETHANE	U		3
75-35-4	1,1-DICHLOROETHENE	U		2
75-34-3	1,1-DICHLOROETHANE	U		2
540-59-0	CIS/TRANS-1,2-DICHLOROETHENE	U		4
67-66-3	CHLOROFORM	12		2
107-06-2	1,2-DICHLOROETHANE	U		2
71-55-6	1,1,1-TRICHLOROETHANE	U		2
56-23-5	CARBON TETRACHLORIDE	U		2
75-27-4	BROMODICHLOROMETHANE	U		2
78-87-5	1,2-DICHLOROPROPANE	U		3
79-01-6	TRICHLOROETHENE	U		2
71-43-2	BENZENE	U		2
10061-015	CIS-1,3-DICHLOROPROPENE	U		2
124-48-1	DIBROMOCHLOROMETHANE	U		3
10061-026	TRANS-1,3-DICHLOROPROPENE	U		2
79-00-5	1,1,2-TRICHLOROETHANE	U		2
110-75-8	2-CHLOROETHYL VINYL ETHER	U		2
75-25-2	BROMOFORM	U		4
79-34-5	1,1,2,2-TETRACHLOROETHANE	U		3
127-18-4	TETRACHLOROETHENE	U		2
108-88-3	TOLUENE	U		3
108-90-7	CHLOROBENZENE	110		2
100-41-4	ETHYLBENZENE	U		2
541-73-1	1,3-DICHLOROBENZENE	U		2
95-50-1	1,2-DICHLOROBENZENE	U		2
106-46-7	1,4-DICHLOROBENZENE	U		2

QUALIFIERS

J Indicates detected below MDL, Estimated Value
U Indicates compound not detected
B Indicates compound also present in blank
E Exceeds Calibration Range, Estimated Value

024

ANA Lab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837 Tel (908) 225-4111 Fax (908) 225-4110

Method 624 Volatile Organics By GC/MS - Aqueous matrix

CLIENT :	ALLIANCE CHEMICAL I	LAB SAMPLE ID :	95-10-026-3
SAMPLE ID:	TRIP BLANK	DATE SAMPLED:	10/2/95
PROJECT:	N/A	DATE RECEIVED:	10/03/95
SAMPLE VOL. :	5.0ML	DATE ANALYZED:	10/11/95
DATA FILE :	>C4124	DIL. FACT :	1.00
EXTRACT/DATE :	N/A	ANALYST:	CN/MRP
NJDEP LAB ID :	12531		

CAS #	COMPOUND	UG/L	Q	MDL
74-87-3	CHLOROMETHANE	U		2
74-83-9	BROMOMETHANE	U		2
75-01-4	VINYL CHLORIDE	U		2
75-00-3	CHLOROETHANE	U		2
75-09-2	METHYLENE CHLORIDE	U		3
75-69-4	TRICHLOROFLUOROMETHANE	U		3
75-35-4	1,1-DICHLOROETHENE	U		2
75-34-3	1,1-DICHLOROETHANE	U		2
540-59-0	CIS/TRANS-1,2-DICHLOROETHENE	U		4
67-66-3	CHLOROFORM	U		2
107-06-2	1,2-DICHLOROETHANE	U		2
71-55-6	1,1,1-TRICHLOROETHANE	U		2
56-23-5	CARBON TETRACHLORIDE	U		2
75-27-4	BROMODICHLOROMETHANE	U		2
78-87-5	1,2-DICHLOROPROPANE	U		3
79-01-6	TRICHLOROETHENE	U		2
71-43-2	BENZENE	U		2
10061-015	CIS-1,3-DICHLOROPROPENE	U		2
124-48-1	DIBROMOCHLOROMETHANE	U		3
10061-026	TRANS-1,3-DICHLOROPROPENE	U		2
79-00-5	1,1,2-TRICHLOROETHANE	U		2
110-75-8	2-CHLOROETHYL VINYL ETHER	U		2
75-25-2	BROMOFORM	U		4
79-34-5	1,1,2,2-TETRACHLOROETHANE	U		3
127-18-4	TETRACHLOROETHENE	U		2
108-88-3	TOLUENE	U		3
108-90-7	CHLOROBENZENE	U		2
100-41-4	ETHYLBENZENE	U		2
541-73-1	1,3-DICHLOROBENZENE	U		2
95-50-1	1,2-DICHLOROBENZENE	U		2
106-46-7	1,4-DICHLOROBENZENE	U		2

QUALIFIERS

J Indicates detected below MDL, Estimated Value
U Indicates compound not detected
B Indicates compound also present in blank
E Exceeds Calibration Range, Estimated Value

025

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TABULATED ANALYTICAL RESULTS

METALS ANALYSIS

ANALab INC. 205 Campus Plaza 1 Raritan Center Edison NJ 08837 Tel (908) 225-4111 Fax (908) 225-4110

ANALYTICAL REPORT

Trace Metals

CLIENT: ALLIANCE CHEMICAL INC
CLIENT PROJECT: N/A
CLIENT ID: A-95-10-3-4-ZN PB
REPORT DATE : OCT. 11 1995
PROJECT RECEIPT DATE:10/03/95

LAB ID: 95-10-0026-004

ANALYST: JD/RS
ANALYSIS DATE: 10/9,10/95

PARAMETER	RESULTS (Ug/l)	MDL (Ug/l)
Lead	<5.0	5.0
Zinc	150.0	50.0

COMMENTS:
FILTERABLE ORGANIC LIQUIDS ARE REPORTED ON A WEIGHT BASIS ONLY.
S = RESULTS BY METHOD OF ADDITION PROCEDURE
< = LESS THAN
÷ = CORRELATION COEFFICIENT FOR METHOD OF ADDITION IS LESS THAN 0.995 AFTER REPEATED ONCE.

ME210A

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840990031

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837 Tel (908) 225-4141 Fax (908) 225-4110

TABULATED ANALYTICAL RESULTS

WET CHEMISTRY

025

ANALab INC. 205 Campus Plaza 1 Raritan Center Edison NJ 08837 Tel (908) 225-4111 Fax (908) 225-4110

ANALYTICAL REPORT

TOTAL CYANIDE

CLIENT: ALLIANCE CHEMICAL INC
CLIENT PROJECT: N/A
REPORT DATE : OCT. 15 1995
PROJECT RECEIVED DATE: 10/03/95

PROJECT: 95-10-0026
ANALYST: EG
ANALYSIS DATE: 10/10/95

CLIENT ID	LAB ID	RESULTS (mg/l)	MDL (mg/l)
A-95-10-3-1-CN	001	<0.020	0.020

WC111

029

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison NJ 08837 Tel (908) 225-4111 Fax (908) 225-4110

ANALYTICAL REPORT

TOTAL SUSPENDED SOLIDS

CLIENT: ALLIANCE CHEMICAL INC
CLIENT PROJECT: N/A
REPORT DATE : OCT. 15 1995
PROJECT RECEIPT DATE : 10/03/95

PROJECT: 95-10-0026
ANALYST: SR

CLIENT ID	LAB ID	RESULTS(mg/l)	MDL(mg/l)	ANALYSIS DATE
A-95-10-3-5-TSS	005	<2.0	2.0	10/4/95

COMMENTS:
MDL = METHOD DETECTION LIMIT.
< = LESS THAN

WC122

030

840990034

ANALab INC. 205 Campus Plaza 1, Raritan Center Edison, NJ 08837 Tel (908) 225-4111 Fax (908) 225-4110

ANALYTICAL REPORT

BIOCHEMICAL OXYGEN DEMAND

CLIENT: ALLIANCE CHEMICAL INC
CLIENT PROJECT: N/A
REPORT DATE : OCT. 15 1995
PROJECT RECEIPT DATE: 10/03/95

PROJECT: 95-10-0026
ANALYST: EG
ANALYSIS DATE: 10/4/95

CLIENT ID	LAB ID	RESULTS (mg/l)	MDL (MG/L)
A-95-10-3-6-BOD	006	150	2.0

WC123

031

840990035

ALLIANCE CHEMICAL INC.
A SUBSIDIARY OF PFISTER CHEMICAL INC.

February 17, 1994

Passaic Valley Sewerage Commissioners
Industrial Waste Control Department
600 Wilson Avenue
Newark, NJ 07105

Dear Sir:

Enclosed find the MR-1 forms for Alliance Chemical Inc's. report on compliance for the period 1/1/94 to 1/31/94.

Very truly yours,

ALLIANCE CHEMICAL, INC.

Richard E. Braun

Richard E. Braun
V.P. Operations

REB:ism
Return receipt requested
HB 189897279

309-327 AVENUE P, NEWARK, NJ 07105 • (201) 344-2344 • FAX (201) 945-0159 • TELEX 130-295 (PFISTER RIDE)

PRETREATMENT MONITORING REPORT

Name ALLIANCE CHEMICAL INC.
Mailing Address 33 Avenue P, Newark, NJ 07105
Facility Location 309 Avenue P, Newark, NJ 07105
Category & Subpart 40 CFR 414.85 Subpart H Outlet # 20401080-44000-0201
Contact Official William Henning Telephone # 201-344-2344

Monitoring Period					
1	1	94	1	31	94
Mo.	Day	Yr.	Mo.	Day	Yr.
Start			End		

For Reporting Period

	AVG
Regulated flow-MGD	0.00098
Total flow-MGD	0.00145

Production rate (if applicable)

Method used:

Composite sample masses were determined using the Total flow.
Grab sample masses used total flow minus domestic flow. (Regulated flow above)
Max. flow not determined. See Attachment 1.

Parameter		Mass Limit or Concentration			No. of Samples	Sample type Comp/grab
		Average	Maximum	Units		
Benzene	Sample measurement	< 0.00087	< 0.00087	lbs.	1	Grab
	Permit requirement	0.03234	0.07602	"		
Carbon Tetra-chloride	Sample measurement	< 0.00087	< 0.00087	"	1	Grab
	Permit requirement	0.08055	0.21557	"		
Chloro-benzene	Sample measurement	< 0.00087	< 0.00087	"	1	Grab
	Permit requirement	0.08055	0.21557	"		
1,2,4,-trichloro-benzene	Sample measurement	< 0.00233	< 0.00233	"	1	Composite
	Permit requirement	0.11119	0.45043	"		
Hexa chloro-benzene	Sample measurement	< 0.00286	< 0.00286	"	1	Composite
	Permit requirement	0.11119	0.45043	"		
1,2-dichloro-ethane	Sample measurement	< 0.00087	< 0.00087	"	1	Grab
	Permit requirement	0.10211	0.32562	"		
1,1,1-tri chloro-ethane	Sample measurement	< 0.00087	< 0.00087	"	1	Grab
	Permit requirement	0.01248	0.03347	"		
Hexa chloro-ethane	Sample measurement	< 0.00215	< 0.00215	"	1	Composite
	Permit requirement	0.11119	0.45043	"		
1,1-dichloro-ethane	Sample measurement	< 0.00087	< 0.00087	"	1	Grab
	Permit requirement	0.01248	0.03347	"		

841160021

PRETREATMENT MONITORING REPORT

ame ALLIANCE CHEMICAL INC.
ailing Address 33 Avenue P, Newark, NJ 07105
acility Location 309 Avenue P, Newark, NJ 07105
ategory & Subpart 40 CFR 414.85 Subpart H Outlet # 20401080-44000-0201
ontact Official William Henning Telephone # 201-344-2344

Monitoring Period					
1	1	94	1	31	94
Mo.	Day	Yr.	Mo.	Day	Yr.
Start			End		

For Reporting Period

	AVG
Regulated flow-MGD	0.02098
Total flow-MGD	0.02145

Production rate (if applicable)

Method used:

omposite sample masses were determined using the Total flow.
rab sample masses used total flow minus domestic flow. (Regulated flow above)
k. flow not determined. See Attachment 1.

Parameter		Mass Limit or Concentration			No. of Samples	Sample type Comp/grab
		Average	Maximum	Units		
1,1,2-trichloroethane	Sample measurement	< 0.00087	< 0.00087	lbs.	1	Grab
	Permit requirement	0.01815	0.07205	"		
Chloroethane	Sample measurement	< 0.00175	< 0.00175	"	1	Grab
	Permit requirement	0.0624	0.16735	"		
Chloroform	Sample measurement	< 0.00087	< 0.00087	"	1	Grab
	Permit requirement	0.06297	0.18437	"		
1,2-dichlorobenzene	Sample measurement	< 0.00233	< 0.00233	"	1	Composite
	Permit requirement	0.11119	0.45043	"		
1,3-dichlorobenzene	Sample measurement	< 0.00233	< 0.00233	"	1	Composite
	Permit requirement	0.08055	0.21557	"		
1,4-dichlorobenzene	Sample measurement	< 0.0025	< 0.0025	"	1	Composite
	Permit requirement	0.08055	0.21557	"		
1,1-dichloroethylene	Sample measurement	< 0.00087	< 0.00087	"	1	Grab
	Permit requirement	0.01248	0.03404	"		
1,2-trans dichloroethylene	Sample measurement	< 0.00087	< 0.00087	"	1	Grab
	Permit requirement	0.01418	0.03744	"		
1,2-dichloropropane	Sample measurement	< 0.00087	< 0.00087	"	1	Grab
	Permit requirement	0.11119	0.45043	"		

841160022

PRETREATMENT MONITORING REPORT

ame ALLIANCE CHEMICAL INC.
illing Address 33 Avenue P, Newark, NJ 07105
acility Location 309 Avenue P, Newark, NJ 07105
ategory & Subpart 40 CFR 414.85 Subpart H Outlet # 20401080-44000-0201
ontact Official William Henning Telephone # 201-344-2344

Monitoring Period					
1	1	94	1	31	94
Mo.	Day	Yr.	Mo.	Day	Yr.
Start			End		

For Reporting Period

	AVG
Regulated flow-MGD	0.02098
Total flow-MGD	0.02145

Production rate (if applicable)

Method used:

omposite sample masses were determined using the Total flow.
rab sample masses used total flow minus domestic flow. (Regulated flow above)
A. flow not determined. See Attachment 1.

Parameter		Mass Limit or Concentration			No. of Samples	Sample type Comp/grab
		Average	Maximum	Units		
1,3-dichloro-propylene	Sample measurement	< 0.00087	< 0.00087	lbs	1	Grab
	Permit requirement	0.11119	0.45043	"		
Ethyl benzene	Sample measurement	< 0.00087	< 0.00087	"	1	Grab
	Permit requirement	0.08055	0.21557	"		
Methylene chloride	Sample measurement	< 0.00087	< 0.00087	"	1	Grab
	Permit requirement	0.02042	0.09644	"		
Chloro methane	Sample measurement	< 0.00175	< 0.00175	"	1	Grab
	Permit requirement	0.0624	0.16735	"		
Hexa chloro-butadiene	Sample measurement	< 0.00233	< 0.00233	"	1	Composite
	Permit requirement	0.08055	0.21557	"		
Nitro benzene	Sample measurement	< 0.00215	< 0.00215	"	1	Composite
	Permit requirement	1.26902	3.63177	"		
2-nitro phenol	Sample measurement	< 0.00197	< 0.00197	"	1	Composite
	Permit requirement	0.03687	0.13104	"		
4-nitro phenol	Sample measurement	< 0.00572	< 0.00572	"	1	Composite
	Permit requirement	0.0919	0.32676	"		
4,6-dinitro-o-cresol	Sample measurement	< 0.00286	< 0.00286	"	1	Composite
	Permit requirement	0.04425	0.15714	"		

841160023

PRETREATMENT MONITORING REPORT

Name ALLIANCE CHEMICAL INC.
Mailing Address 33 Avenue P, Newark, NJ 07105
Facility Location 309 Avenue P, Newark, NJ 07105
Category & Subpart 40 CFR 414.85 Subpart H Outlet # 20401080-44000-0201
Contact Official William Henning Telephone # 201-344-2344

Monitoring Period					
1	1	84	1	31	84
Mo.	Day	Yr.	Mo.	Day	Yr.
Start			End		

Production rate (if applicable)

For Reporting Period

	AVG
Regulated flow-MGD	0.00098
Total flow-MGD	0.00145

Method used:

Composite sample masses were determined using the Total flow.
Grab sample masses used total flow minus domestic flow. (Regulated flow above)
Max. flow not determined. See Attachment 1.

Parameter		Mass Limit or Concentration			No. of Samples	Sample type Comp/grab
		Average	Maximum	Units		
Tetra chloro-ethylene	Sample measurement	< 0.00087	< 0.00087	lbs	1	Grab
	Permit requirement	0.0295	0.09304	"		
Toluene	Sample measurement	< 0.00087	< 0.00087	"	1	Grab
	Permit requirement	0.01588	0.04198	"		
Vinyl Chloride	Sample measurement	< 0.00175	< 0.00175	"	1	Grab
	Permit requirement	0.05503	0.09757	"		
Trichloro -ethylene	Sample measurement	< 0.00087	< 0.00087	"	1	Grab
	Permit requirement	0.01475	0.03914	"		
Total Cyanide	Sample measurement	0.0035	0.0035	"	1	Grab
	Permit requirement	< 0.23826	0.68074	"		
Total Lead	Sample measurement	< 0.00179	< 0.00179	"	1	Composite
	Permit requirement	0.18153	0.39143	"		
Total Zinc	Sample measurement	0.10376	0.10376	"	1	Composite
	Permit requirement	0.59565	1.43062	"		

841160024

PRETREATMENT MONITORING REPORT

Certification of Non-use if applicable (use additional sheets)

N/A

Compliance or non compliance statement with compliance schedule (use additional sheets if necessary) for every parameter used.

We are in compliance with all parameters .
See attachment 2.

Explain method for preserving samples:

1) All samples were preserved at 0-4'C.
2) Heavy metal samples were preserved with nitric acid at a pH <1.0 .
3) Cyanide samples were preserved with caustic at a pH >12.0 .
4) VOA samples were preserved with ascorbic acid/ Hydrochloric Acid (1:1) in a 40 ml vial.
5) BNA samples were stored in a brown bottle.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

403.6(a)(2)(ii) revised by 53 FR 40610, October, 17, 1988

Richard E Braun
Signature of Principal
Executive or Authorized Agent

Richard E. Braun

Vice President of Operations
Type Name and Title

2/17/94
Date

PVSC Form MR-1 Rev. 5 3/91 P2

841160025

ATTACHMENT 1

Water volume was calculated from the sum of the readings from our compound water meter:

	Meter A	Meter B
ENDING	358541	7816
STARTING	358205	7669
	336	147

Total Usage: = 43300 Cubic Ft. = 361284 gal.

Total Flow to Sewers was 95% of above: = = 343000 gal.

Summary of flow parameters:

Total Usage	361284	=	23580 gpd
Total Flow to Sewers: (361,284 x 0.95)	343220	=	21451 gpd
Total Unregulated flow to sewers: (19x25x16)	7600	=	475 gpd
Total Regulated Flow to Sewers: (343,220-7,600)	335620	=	20976 gpd

Composite samples were taken from the total flow to sewers which includes both the regulated and the unregulated (sanitary) flows. See flow diagram.
Total Flow = 343,220 gal. or 21,451 gpd.
Mass values for compounds extracted from the composite samples were calculated using the total flow.

Grab samples were taken upstream from the point of dilution with unregulated (sanitary) waste water, and represent our total flow minus the unregulated flow. (See flow diagram),
Regulated Flow = 343,220 gal - 7600 gal = 335,620 gal. or 20976 gpd.
Mass values for compounds extracted from the grab samples were calculated using the regulated flow.

The only unregulated flow in our plant consists of water used for sanitary purposes. It was determined as follows: We had 19 employees and assume that each uses 25 gallons per day. Total unregulated usage over 16 working days during the reporting period was:

19 employees x 25 gal/emp. x 16 days worked = 7600 gallons.

No maximum flows were determined because all data are derived from our incoming water meters on the basis of monthly readings.

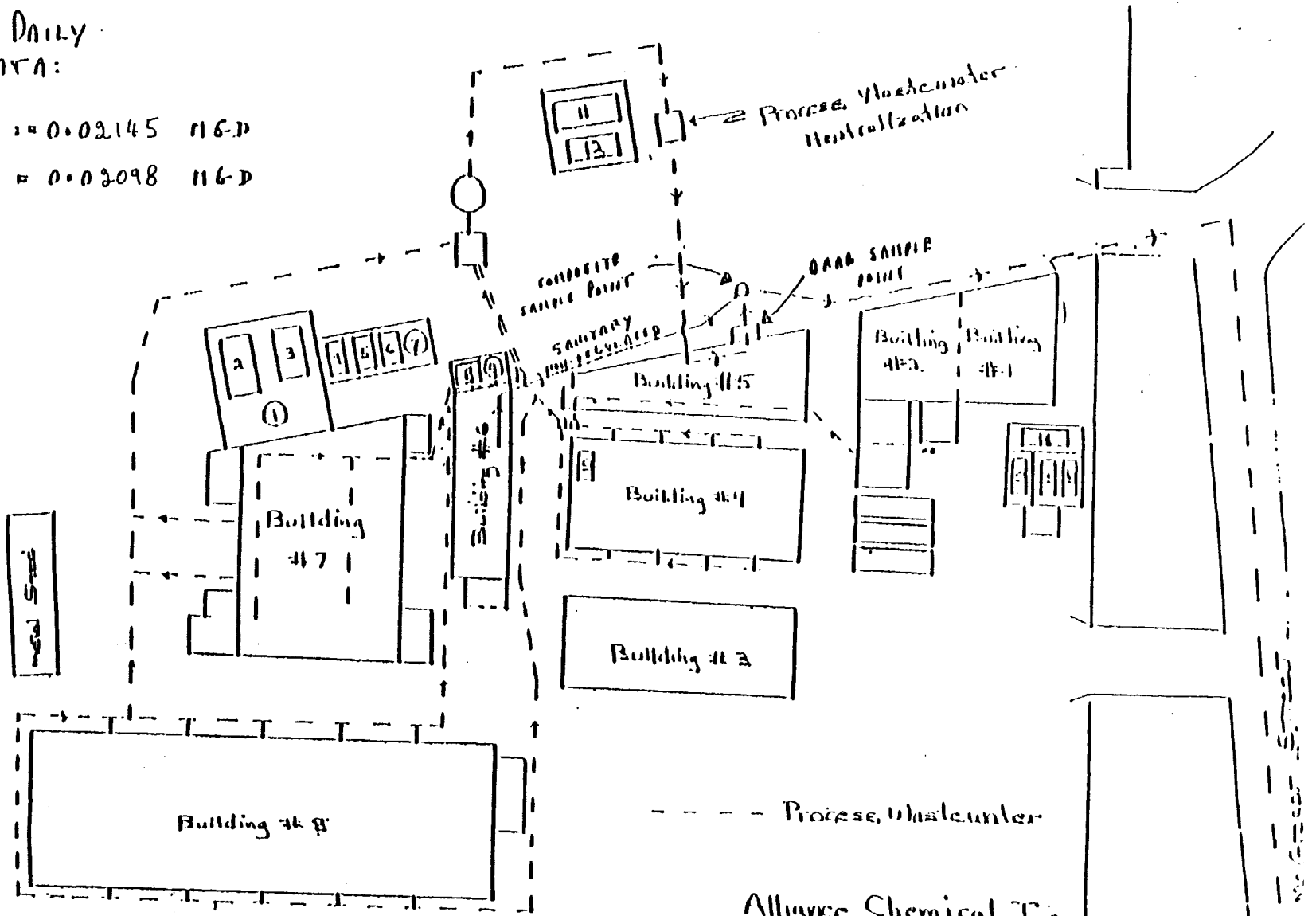
COMPLIANCE STATEMENT
ATTACHMENT 2

1.) We are in compliance with all parameters.

AVERAGE DAILY
FLOW DATA:

COMPOSITE = 0.02145 MGD

GRAB: = 0.02098 MGD



Richard E Braun 2/17/94

Alliance Chemical, Inc.
301-337 Avenue P
Newark, NJ 07105

841160028

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111, Fax: (908) 225-4110

JANUARY 31, 1994

ALLIANCE CHEMICAL INC.
33 AVENUE P
NEWARK, NJ 07105
Att: Bill Henning

Analytical Report: 94-01-0018 Project: N/A

This report covers the analyses of six (6) samples submitted to Analab on January 5, 1994. The following analyses were requested:

PRIORITY POLLUTANT VOLATILE ORGANICS (2)
ZINC, LEAD (1)
TOTAL CYANIDE (1)
TOTAL SUSPENDED SOLIDS (1)
BIOCHEMICAL OXYGEN DEMAND (1)

Respectfully submitted,

Robert F. Hulit
Manager of Laboratory Services

RH/ma

841160029

ANALAB INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

LABORATORY DELIVERABLES CHECKLIST

94-01-0018

THIS FORM HAS BEEN COMPLETED BY THE LABORATORY AND IS AVAILABLE TO THE ENVIRONMENTAL CONSULTANT TO ACCOMPANY ALL DATA SUBMISSIONS

The following laboratory deliverables are included in this Analytical Report. Any deviations from the accepted methodology and procedures, or performance values outside acceptable ranges are summarized in the Non-Conformance Summary.

I.	Report Cover Page, Laboratory Certification and Field Sample to Lab Sample ID Cross Reference	✓
II.	Table of Contents	✓
III.	Chain of Custody Documents	✓
IV.	Methodology Summaries	✓
V.	Laboratory Chronicle and Hold Time Checks	✓
VI.	Non-Conformance Summary	✓
VII.	Tabulated Analytical Results	✓
VIII.	Initial and Continuing Calibration Information	✓
IX.	Tune and Internal Standard Area Summaries (GC/MS)	✓
X.	Quality Control Summary Reports	✓
XI.	Surrogate Recovery Summary	✓
XII.	Raw Data Chromatograms, Blank, QCs and Samples	✓
XIII.	Subsidiary Information (Subcontract if applicable)	✓

E Ghumandle QAcC
Laboratory Manager or QA/QC Coordinator

2/8/94
Date

A:\QCCLST
1/93

841160030

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison NJ 08837, Tel (908) 225-4111, Fax (908) 225-4110

ANALYTICAL DATA REPORT PACKAGE

FOR

ALLIANCE CHEMICAL INC
NEWARK, NJ 07105

Client Project:N/A

Project:N/A

Sample(s) Received Date:01/05/94

LABORATORY SAMPLE ID	SAMPLE DESCRIPTION/LOCATION	SAMPLE DATE/TIME
94-01-0018-001	A-94-1-5-1-CN	1/5/94 ; 9:45
94-01-0018-002	A-94-1-5-2-VOA	1/5/94 ; 9:45
94-01-0018-003	A-94-1-5-3-TRIP BLANK	1/3/94 ; N/A
94-01-0018-004	A-94-1-5-4-ZN-PB	1/5/94 ; 9:45
94-01-0018-005	A-94-1-5-5-TSS	1/5/94 ; 9:45
94-01-0018-006	A-94-1-5-6-BOD	1/5/94 ; 9:45

LABORATORY NAME: ANALAB, INC.
LABORATORY ID: 12531

NJDEP ID:12531 MADEQE ID: NJ302 VADGS ID: 00007
NYDOH :11104 RIDHHL ID: NJ12531 NHDES ID: 250492-A,B
PADER ID:68-368 CTDHS ID: PH-0649 MDDHMH ID: 186

QUALITY CONTROL COORDINATOR: E Inumerable
Edith Inumerable
Yi Zhang

MANAGER OF LABORATORY SERVICES: Robert F. Hulit
Robert F. Hulit

COMMENTS:
NA = NOT AVAILABLE FROM CHAIN OF CUSTODY / NOT APPLICABLE

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837, Tel: (908) 225-4111, Fax: (908) 225-4110

TABLE OF CONTENTS

PROJECT NUMBER: 94-01-0018

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111. Fax: (908) 225-4110

CHAIN OF CUSTODY

841160033

ANALAB INC.

205 Campus Plaza 1, Raritan Center, Edison, New Jersey 08837 (908) 225-4111
ENVIRONMENTAL ANALYTICAL LABORATORY SERVICES FAX (908) 225-4110

CHAIN-OF-CUSTODY RECORD and Work Authorization

LAB SDG NO. (FOR LAB USE ONLY) 94-01-18

Company: Alliance Chemical INC
Address: 33 Ave P
City: Newark
State: N. J. ZIP: 07105 Phone: 201-344-2344
Project Manager: Bill Henning FAX# 201-491-9399
Project name: Purchase Order No.:

ANALYSIS REQUESTED

SAMPLE DESCRIPTION	TYPE GRAB	TYPE COMP	MATRIX TYPE	DATE SAMPLED	TIME	PRES	NO. CONT	Cyanide	VOA 624	TRP Blank-VOA 624	Zinc-Lead	TSS	BOD	REMARKS
1. A-94-1-5-1-CN	X		H_2O	1/5/94	9:45	X	1	X						1-2 LDE
2. A-94-1-5-2-VOA	X		H_2O	1/5/94	9:45	X	2		X					2 VOA'S
3. A-94-1-5-3-TRP BLNK	X			1/3/94		X	2			X				2 VOA'S
4. A-94-1-5-4-Zn-Pb		X	H_2O	1/5/94	9:45	X	1				X			1-CLDE
5. A-94-1-5-5-TSS		X	H_2O	1/5/94	9:45		1					X		1-500 mL
6. A-94-1-5-6-BOD		X	H_2O	1/5/94	9:45		1						X	1-500 mL

PRINT ANALYSIS REQUESTS CLEARLY, LEGIBLY AND COMPLETELY. Page 1 of 1

FAILURE TO PRINT CLEARLY, LEGIBLY AND COMPLETELY MAY RESULT IN DELAYS. ANY ANALYSIS REQUEST NOT ENTERED COMPLETELY, CLEARLY AND LEGIBLY OR WHICH IS CONFUSING OR AMBIGUOUS MAY RESULT IN DELAYS. SAMPLES CAN NOT BE LOGGED IN AND THE TURNAROUND TIME CLOCK WILL NOT START UNTIL ANY AMBIGUITIES ARE RESOLVED. TO AVOID THIS, PRINT CLEARLY, LEGIBLY AND COMPLETELY.

SAMPLER/SUBMITTER'S STATEMENT: I attest that the proper field sampling procedures were used during the collection of these samples and that the information on this Chain of Custody and the analysis(es) requested are true and correct. Name (print): Richard Adamkiewicz Signature: Richard Adamkiewicz

RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	REASON:
Richard Adamkiewicz	Tejas Desai	1/4/94	12:25	

RELINQUISHED TO LABORATORY BY:	ACCEPTED FOR LAB BY	DATE	TIME
Tejas Desai	[signature]	1/5/94	1:00

REMARKS: Use minimum dilutions; VOA must have MDL's if < 20ppb, Samples may contain nitrate, nitrate, sulfate sulfate, diff org probable contact ASAP. Please Rush results within 3 weeks. FAX results as they are assayed

LABORATORY COMMENTS: (Lab Use Only)
All Samples Received
Temp. 5.5 °C Cool (Yes) No
Samples Intact (Yes) No
Properly Preserved (Yes) No

DATA DELIVERABLES
[ ] Tier I [X] Tier II [ ] Results Only
[ ] ECRA [ ] Other:

STANDARD TURNAROUND TIME [ ] (2-3 Weeks)

PRIORITY TURNAROUND TIME AUTHORIZATION
Before submitting samples for expidited T.A.T. you must have requested in advance and received a coded T.A.T. AUTHORIZATION NUMBER from the office of V.P. of Lab Operations.

AUTHORIZATION NO.:
T.A.T. AUTHORIZED:

SPECIAL HANDLING: Contact Person: Phone:
FAX: Other:

For Lab Use Only

841160034

 White: Lab Yellow: Accounting Pink: Customer/Client Form 0101 Rev. 7/91

ANALab INC.

205 Campus Plaza 1, Raritan Center, Edison, New Jersey 08837 (908) 225-4111
Environmental Analytical Laboratory Services Fax (908) 225-4110

Sub-contracting

CHAIN-OF-CUSTODY
and
WORK AUTHORIZATION

LAB SDG NO.: (For Lab Use Only) 94-01-18

To: Chyun Lab
267 Wall Street
Princeton, New Jersey 08540

Analysis Requested

BOD

Please Print Analysis Requests Clearly, Legibly and Completely

Page 1 of 1

SAMPLE DESCRIPTION	TYPE GRB	TYPE COMP	MATRIX TYPE	DATE SAMPLED	TIME	PRES	NO. CONT	BOD
94-01-18-006		X	water	1/5/94	9:45	—	1	X

TURNAROUND TIME: CIRCLE T.A.T. NEEDED — STANDARD 14 DAYS 10 DAYS 7 DAYS 5 DAYS OTHER ✓

Results needed by 1/17/94

RELINQUISHED BY:	RECEIVED BY:	DATE:	TIME:	REASON:	RELINQUISHED TO LAB BY:	ACCEPTED FOR LAB BY:	DATE:	TIME:
[signature]	[signature]	1/5/94	1340					

REMARKS:

LABORATORY COMMENTS:
(Lab Use Only)

(CIRCLE ONE) DATA DELIVERABLES (CIRCLE ONE)

PLEASE PROVIDE US WITH A COPY OF THIS FORM WITH ALL RESULTS.

RESULTS ONLY — RESULTS & QC SUMMARIES (circled)

TIER II — OTHER ______

FOR LABORATORY USE ONLY

84116O035

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837 Tel (908) 225-4111, Fax: (908) 225-4110

METHODOLOGY SUMMARY

PARAMETER	REFERENCES
Alumina Column Cleanup and Seperation of Petroleum Wastes	Test Methods for Evaluating Solid Wastes: Vol. IB, USEPA SW-846, 1986, Method 3611.
Volatile Organics (GC/MS)	Test Methods for Evaluating Solid Wastes: Vol. 1B, USEPA SW-846, 1986, Method 8240. Test Methods for Evaluating Solid Wastes Physical/Chemical Methods: 2nd USEPA SW-846, 1982, Methods 5020 and 5030. Title 40 CFR Part 136 " Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act, Method 624", July 1, USEPA Contact Laboratory Program (CLP) Statement of Work for Organics Analysis, 9/88.
Semi-Volatile Organics (GC/MS)	Test Methods for Evaluating Solid Wastes Physical/Chemical Methods: 2nd d., USEPA SW-846, 1982, Method 8270. Test Methods for Evaluating Solid Wastes: Vol. 1B, USEPA SW-846, 1986, Method 3550. Title 40 CFR Part 136 " Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act, Method 625", July 1, 1988. USEPA Contact Laboratory Program (CLP) Statement of Work for Organic Analysis, 9/88.
Volatile Aromatics (GC)	Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater: USEPA 600/4-81-057, 1981, Method 503.1. Title 40 CFR Part 136 " Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act, Method 602", July 1, 1988.
TCLP (Toxicity Characteristics Leachate Procedure)	Title 40 CFR Part 261 "Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Toxicity Characteristics Revisions; Final Rule", June 29, 1990.
Percent Solids	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 160.3. Standard Methods for the Examination of Water and Wastewater, 16th ed., pp. 92-94, Method 209A, (1985).

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ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837 Tel: (908) 225-4111 Fax: (908) 225-4110

METHODOLOGY SUMMARY

INORGANIC PARAMETER	REFERENCES
Metals	Methods of Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Section 200. Standard Methods for the Examination of Water and Wastewater, 16th ed., pp. 148-179, Methods 302A through D, 303A through F, and 304, (1985). Test Methods for Evaluating Solid Wastes; Vol. 1A USEPA SW-846, 1986, Chapters 3.2 and 3.3. Title 40 CFR Part 141 "National Primary Drinking Water Regulation, Section 141.23", July 1, 1988.
TCLP (Toxicity Characteristics Leachate Procedure)	Title 40 CFR Part 261 "Hazardous Waste Management System; Identification and Listing of Hazardous Waste; Toxicity Characteristics Revisions; Final Rule", June 29, 1990.
E.P. TOXICITY METALS	Test Methods for Evaluating Solid Wastes; Vol. 1A USEPA SW-846, 1986, Method 1310.
Hexavalent Chromium	Test Methods for Evaluating Solid Wastes; 2nd.ed., USEPA SW-846, Method 3060.

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837 Tel (908) 225-4111, Fax (908) 225-4110

METHODOLOGY SUMMARY

INORGANIC PARAMETER	REFERENCES
Total Cyanide/ Amenable Cyanide	Methods of Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 335.2.
	Standard Methods for the Examination of Water and Wastewater, 16th ed., pp. 327-338, Methods 512A through D, (1985).
	Test Methods for Evaluating Solid Wastes Physical/ Chemical Methods; 3rd ed., USEPA SW-846, 1987, Method 9010.
Reactive Cyanide	Test Methods for Evaluating Solid Wastes Physical/ Chemical Methods; 3rd ed., USEPA SW-846, 1987, Chapter 7, Method 7.3.3.2.
Reactive Sulfide	Test Methods for Evaluating Solid Wastes Physical/ Chemical Methods; 3rd ed., USEPA SW-846, 1987, Chapter 7, Method 7.3.4.2.
Phenols	Methods of Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 335.2.
	Standard Methods for the Examination of Water and Wastewater, 16th ed., pp. 557-558, Methods 510A through C, (1985).
Flashpoint	Test Methods for Evaluating Solid Wastes; Vol. IC, USEPA SW-846, 1986, Method 1020.
RCRA Ignitability	Test Methods for Evaluating Solid Wastes; Vol. IC, USEPA SW-846, 1986, Method 1020.
	Test Methods for Evaluating Solid Wastes; Vol. IC, USEPA SW-846, 1986, Chapter 7, Sect. 7.1.2.A.2.

ANALab INC. METHODOLOGY SUMMARY
205 Campus Plaza 1, Raritan Center, Edison, NJ 08837 Tel (908) 225-4111, Fax (908) 225-4110

PARAMETER	REFERENCES
Biochemical Oxygen Demand(BOD)	Standard Methods 16th ed., Methods for the Examination of Water and Wastewater, 16th ed., pp. 421-425, Method 421F, pp. 525-532, Method 507, (1985).
Chemical Oxygen Demand (COD)	Standard Methods 16th ed., Methods for the Examination of Water and Wastewater, 16th ed., pp. 533-535, Method 508A, (1985). Hach Handbook, Method 8000, Titrimetrimetric Method.
Total Organic Carbon (TOC)	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 415.1.
Nitrate Nitrogen (NO3-N)	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 352.1.
Chloride (Cl)	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 325.3.
Fluoride (F)	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 340.2.
Alkalinity (ALK)	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 310.1.
Specific Conductance	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 415.1.

Asbestos	EPA 600-M4-82-020(LM)	Ammonia Nitrogen	EPA 350.3
Bromide	SM 405	Color(Pt/Co units)	EPA 110.2
Iodine	EPA 345.1	Fecal Coliforms	EPA 78, P 124
Total Coliform	EPA 78, P 108	MBAS/LAS	EPA 425.1
Nitrate	EPA 352.1	Nitrate (NO 2)	EPA 354.1
Ortho-Phosphate	EPA 365.1	Phenolics	EPA 420.1
Phosphorus (all forms)	EPA 365.2	Sulfate	EPA 375.3
Sulfide	EPA 376.2	Sulfite	SM 428a
Turbidity	EPA 180.1	TKN, Org, N 2, (dist/probe)	EPA 351.4
Total Hardness	EPA 130.2	Total Organic Halides	ASTM 2015
Total Solids	EPA 160.3	Total Volatile Solids	EPA 160.4

EPA= Methods for Chemical Analysis of Water and Waste;
USEPA 600/4-79-200, 1983.
EPA= Micro Biological Methods for Monitoring the Environment, 1978
EPA= Asbestos Methods-USEPA 600-M4-82-020, DEC. 1982.
SM17= Standard Methods for the Examination of Water and Waste Water,
17TH ed., 1989
SM= Standard Methods for the Examination of WAter and Waste Water, 16TH ed..

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ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111, Fax: (908) 225-4110

METHODOLOGY SUMMARY

PARAMETER	REFERENCES
Percent Solids/ Percent Moisture	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 160.3. Standard Methods for the Examination of Water and Wastewater, 16th ed., pp. 92-94, Method 209A, (1985).
Total Dissolved Solids (TDS)	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 160.1.
Total Suspended Solids (TSS)	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 160.2.
Total Petroleum Hydrocarbons (Spectrophotometric, Infrared)	Methods for Chemical Analysis of Water and Wastes: USEPA 600/4-79-200, 1983, Method 418.1. Standard Methods for the Examination of Water and Wastewater: 16th ed., pp. 501-502, Method 503E, (1985). Test Methods for Evaluating Solid Waste Physical/Chemical Methods: 2nd ed/, Vol. IC, USEPA SW-846, 1986, Method 3540.
Oil and Grease (Spectrophotometric, Infrared)	Methods for Chemical Analysis of Water and Wastes: IC, USEPA 600/4-79-200, 1983, Method 413.1. Standard for Methods for the Examination of Water and Wastewater: 16th ed., pp. 498-500, Method 503B and C, (1985). Test Methods for Evaluating Solid Waste Physical/Chemical Methods: 2nd ed., Vol. IC, USEPA SW-846, 1986, Method 3540.
Oil and Grease (Gravimetric)	Methods for Chemical Analysis of Water and Wastes: USEPA 600/4-79-200, 1983, Method 413.1. Standard Methods for the Examination of Water and Wastewater: 16th ed., pp.496-498, Method 503A and B, (1985).
Corrosivity by pH	Test Method for Evaluating Solid Wastes: Vol. IC, USEPA SW-846, 1986, Method 9040.
Paint Filter Liquids Test	Test Methods for Evaluating Solid Waste: Physical/Chemical Methods; 3rd ed., Vol IC, USEPA SW-846, 1986, Method 9095.
Specific Conductance	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 415.1.
Total Organic Carbon (TOC)	Methods for Chemical Analysis of Water and Wastes; USEPA 600/4-79-200, 1983, Method 415.1.

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LABORATORY CHRONICLE

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LABORATORY CHRONICLE

CLIENT: ALLIANCE CHEMICAL INC. REPORT NO.: 94-01-0018

SAMPLING DATE: 1/5/94 DATE RECEIVED BY LABORATORY: 1/5/94

LAB SAMPLE ID	EXTRACTION DATE	CLIENT SAMPLE DESIGNATION	PARAMETER	DATE ANALYZED	ANALYST
94-01-0018-2	NA	A-94-1-5-2-VOA	VOA	1/13/94	MRP,BP
94-01-0018-3	"	A-94-1-5-3-TRIP BL.	"	"	"
94-01-0018-4	1/10/94	A-94-1-5-4-ZN-PB	PB,ZN	1/10,12/94	DR,ED
94-01-0018-1	1/11/94	A-94-1-5-1-CN	TCN	1/11/94	MR
94-01-0018-5	NA	A-94-1-5-5-TSS	TSS	1/7/94	JT
94-01-0018-6	NA	A-94-1-5-6-BOD	BOD	1/5/94	CHYUN

FORM 99
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841160042

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SAMPLE MANAGEMENT LABORATORY CHRONICLE

CLIENT NAME: Alliance Chem
LAB PROJECT ID: 94-01-18
CLIENT PROJECT: N/A
SAMPLE TEMP ON RECEIPT: 5.5 C
RAS # :
SAMPLE DATE(S): 1/5/94
SAMPLE RECEIVE DATE: 1/5/94
SAMPLE MATRIX: (H2O) SOIL, _____
PAGE 1 OF 1.

CONDITION OF SAMPLES RECEIVED BY LAB	NA	YES	NO	COMMENTS
Cooler Seal Intact	NA	(YES)	NO	
Samples Received Cool (2-6°C)	NA	(YES)	NO	
Samples Received Intact		(YES)	NO	
Sample Labels Match Chain of Custody		(YES)	NO	
VOAs HCL Preserved as per Label or Custody	NA	(YES)	NO	
VOAs w/out Bubbles, Septa TFE Side Down	NA	(YES)	NO	
Airbill Present, if by Common Carrier.	(NA)	YES	NO	
Traffic Reports Present if applicable	(NA)	YES	NO	
Subcontract Analysis Required (Sub COC)		(YES)	NO	BOD

PRESERVATION CHECKS PERFORMED FOR AQUEOUS SAMPLES NEEDING PH ADJUSTMENT

N/A = IF NOT APPLICABLE

LAB SAMPLE	FRACTION	PH MEASURED	OK	COMMENTS BY SM ON RECEIPT
001	CN	7.2	✓	NaOH
004	METALS	<2	✓	HNO3

Note: NA = Not Applicable or Not Available from Chain of Custody

Gary Stein
Sample Custodian Signature

1/5/94
Date

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841160043

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CASE NARRATIVE/NONCONFORMANCE SUMMARY

841160044

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY

94-01-0018

		No	Yes
1.	GC/MS Tune Specifications		
	a. BFB passed	___	✓
	b. DFTPP passed	___	NA
2.	GC/MS Tuning Frequency - Performed every 12 hours	___	✓
3.	GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours before sample analysis	___	✓
4.	GC/MS Calibration Requirements		
	a. Calibration Check Compounds	___	✓
	b. System Performance Check Compounds	___	✓
5.	GC/MS Internal Standard Areas - Within limits	___	✓
6.	Blank Contamination - List compounds for each fraction		
	a. VOA Fraction: No target compounds		
	b. B/N Fraction: NA		
	c. Acid Fraction: NA		
7.	Surrogate Recoveries Meet Criteria (If not met, list those compounds and their recoveries which fall outside the acceptable range)	___	✓
	a. VOA Fraction: ✓		
	b. B/N Fraction: NA		
	c. Acid Fraction: NA		
8.	Extraction Holding Time Met	___	NA
	Comments:		
9.	Analysis Holding Time Met	___	✓
	Comments:		

Additional Comments: _____

Lab or QA Coodinator: J Summerlin QAcc Date: 2/8/94

A:QCMSCLST

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841160045

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CASE NARRATIVE / NONCONFORMANCE SUMMARY

PROJECT: 94-01-0018

There were no other nonconformances found.

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TABULATED ANALYTICAL RESULTS

GC/MS VOLATILE ORGANICS

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ANALYTICAL REPORT FLAGS:

U Compound was analyzed but not detected. The number proceeding the analytical flag "U" is the minimum attainable detection limit for the sample.

J Compound was detected but below the Method Detection Limit (MDL). Quantitation is approximate.

B Compound was found to be present in the method blank.

E Compound concentration exceeded the calibration range of the GC/MS instrument. Secondary dilution was required.

D Compound was identified in the analysis at a secondary dilution factor.

BMDL Compound was detected but below the Method Detection Limit (MDL). Quantitation is approximate.

Compounds detected for Soil/Solid Analysis are reported on a dry weight basis.

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Priority Pollutant Volatile Organics By GC/MS

CLIENT :	ALLIANCE CHEMICAL	LAB SAMPLE ID :	94-01-18-2
SAMPLE ID:	A-94-1-5-2-VOA	DATE SAMPLED:	1/05/94
PROJECT:	N/A	DATE RECEIVED:	1/05/94
SAMPLE VOL. :	5.0mL	DATE ANALYZED:	01/13/94
DATA FILE :	>C2139	DIL. FACT :	1.00
EXTRACT/DATE :	N/A	ANALYST:	MRP/BP
NJDEP LAB ID :	12531		

CAS #	COMPOUND	UG/L	Q	MDL
74-87-3	CHLOROMETHANE	U		10
74-83-9	BROMOMETHANE	U		10
75-01-4	VINYL CHLORIDE	U		10
75-00-3	CHLOROETHANE	U		10
75-09-2	METHYLENE CHLORIDE	U		5
75-69-4	TRICHLOROFLUOROMETHANE	U		5
75-35-4	1,1-DICHLOROETHENE	U		5
75-34-3	1,1-DICHLOROETHANE	U		5
540-59-0	CIS/TRANS-1,2-DICHLOROETHENE	U		5
67-66-3	CHLOROFORM	U		5
107-06-2	1,2-DICHLOROETHANE	U		5
71-55-6	1,1,1-TRICHLOROETHANE	U		5
56-23-5	CARBON TETRACHLORIDE	U		5
75-27-4	BROMODICHLOROMETHANE	U		5
78-87-5	1,2-DICHLOROPROPANE	U		5
79-01-6	TRICHLOROETHENE	U		5
71-43-2	BENZENE	U		5
10061-015	CIS-1,3-DICHLOROPROPENE	U		5
124-48-1	DIBROMOCHLOROMETHANE	U		5
10061-026	TRANS-1,3-DICHLOROPROPENE	U		5
79-00-5	1,1,2-TRICHLOROETHANE	U		5
110-75-8	2-CHLOROETHYL VINYL ETHER	U		5
75-25-2	BROMOFORM	U		5
79-34-5	1,1,2,2-TETRACHLOROETHANE	U		5
127-18-4	TETRACHLOROETHENE	U		5
108-88-3	TOLUENE	U		5
108-90-7	CHLOROBENZENE	2.3	J	5
100-41-4	ETHYLBENZENE	U		5
541-73-1	1,3-DICHLOROBENZENE	U		5
95-50-1	1,2-DICHLOROBENZENE	U		5
106-46-7	1,4-DICHLOROBENZENE	U		5

QUALIFIERS

J Indicates detected below MDL, Estimated Value
U Indicates compound not detected
B Indicates compound also present in blank
E Exceeds Calibration Range, Estimated Value

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Priority Pollutant Volatile Organics By GC/MS

CLIENT : ALLIANCE CHEMICAL
SAMPLE ID: A-94-1-5-3-TRP BLNK
PROJECT: N/A
SAMPLE VOL. : 5.0mL
DATA FILE : >C2127
EXTRACT/DATE : N/A
NJDEP LAB ID : 12531

LAB SAMPLE ID : 94-01-018-3
DATE SAMPLED: 1/03/94
DATE RECEIVED: 1/05/94
DATE ANALYZED: 01/13/94
DIL. FACT : 1.00
ANALYST: MRP/BP

CAS #	COMPOUND	UG/L	Q	MDL
74-87-3	CHLOROMETHANE	U		10
74-83-9	BROMOMETHANE	U		10
75-01-4	VINYL CHLORIDE	U		10
75-00-3	CHLOROETHANE	U		10
75-09-2	METHYLENE CHLORIDE	U		5
75-69-4	TRICHLOROFLUOROMETHANE	U		5
75-35-4	1,1-DICHLOROETHENE	U		5
75-34-3	1,1-DICHLOROETHANE	U		5
540-59-0	CIS/TRANS-1,2-DICHLOROETHENE	U		5
67-66-3	CHLOROFORM	U		5
107-06-2	1,2-DICHLOROETHANE	U		5
71-55-6	1,1,1-TRICHLOROETHANE	U		5
56-23-5	CARBON TETRACHLORIDE	U		5
75-27-4	BROMODICHLOROMETHANE	U		5
78-87-5	1,2-DICHLOROPROPANE	U		5
79-01-6	TRICHLOROETHENE	U		5
71-43-2	BENZENE	U		5
10061-015	CIS-1,3-DICHLOROPROPENE	U		5
124-48-1	DIBROMOCHLOROMETHANE	U		5
10061-026	TRANS-1,3-DICHLOROPROPENE	U		5
79-00-5	1,1,2-TRICHLOROETHANE	U		5
110-75-8	2-CHLOROETHYL VINYL ETHER	U		5
75-25-2	BROMOFORM	U		5
79-34-5	1,1,2,2-TETRACHLOROETHANE	U		5
127-18-4	TETRACHLOROETHENE	U		5
108-88-3	TOLUENE	U		5
108-90-7	CHLOROBENZENE	U		5
100-41-4	ETHYLBENZENE	U		5
541-73-1	1,3-DICHLOROBENZENE	U		5
95-50-1	1,2-DICHLOROBENZENE	U		5
106-46-7	1,4-DICHLOROBENZENE	U		5

QUALIFIERS

J Indicates detected below MDL, Estimated Value
U Indicates compound not detected
B Indicates compound also present in blank
E Exceeds Calibration Range, Estimated Value

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TABULATED ANALYTICAL RESULTS

METALS ANALYSIS

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ANALYTICAL REPORT

TRACE METALS BY ATOMIC ABSORPTION SPECTROPHOTOMETRY

CLIENT: ALLIANCE CHEMICAL
CLIENT PROJECT: NA
CLIENT SAMPLE ID: A-94-1-5-4-ZN-PB
MATRIX: AQUEOUS

NJDEP LAB ID:12531
PROJECT: 94-01-0018-4
ANALYSIS DATE: 1/10,12/94
ANALYST:

PARAMETER	RESULTS (UG/L)	MDL (UG/L)
LEAD	<10.0	10.0
ZINC	580.0	50.0

COMMENTS:
MDL = METHOD DETECTION LIMIT.
< = LESS THAN

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TABULATED ANALYTICAL RESULTS

WET CHEMISTRY

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111, Fax: (908) 225-4110

ANALYTICAL REPORT

TOTAL CYANIDE

CLIENT: ALLIANCE CHEMICAL INC
CLIENT PROJECT: N/A
REPORT DATE : JAN. 18 1994
PROJECT RECEIVED DATE: 01/05/94

PROJECT: 94-01-0018
ANALYST: MR
ANALYSIS DATE: 1/11/94

CLIENT ID	LAB ID	RESULTS (mg/l)	MDL (mg/l)
A-94-1-5-1-CN	001	<0.02	0.02

WC111

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837. Tel: (908) 225-4111. Fax: (908) 225-4110

ANALYTICAL REPORT

TOTAL SUSPENDED SOLIDS

CLIENT: ALLIANCE CHEMICAL INC
CLIENT PROJECT: N/A
REPORT DATE : JAN. 18 1994
PROJECT RECEIPT DATE : 01/05/94

PROJECT: 94-01-0018
ANALYST: JT

CLIENT ID	LAB ID	RESULTS(mg/l)	MDL(mg/l)	ANALYSIS DATE
A-94-1-5-5-TSS	005	13.2	2.0	1/7/94

COMMENTS:
MDL = METHOD DETECTION LIMIT.
< = LESS THAN

WC122

ANALab INC. 205 Campus Plaza 1, Raritan Center, Edison, NJ 08837 Tel: (908) 225-4111, Fax: (908) 225-4110

ANALYTICAL REPORT

BIOCHEMICAL OXYGEN DEMAND

CLIENT: ALLIANCE CHEMICAL INC
CLIENT PROJECT: N/A
REPORT DATE : JAN. 12 1994
PROJECT RECEIPT DATE: 01/05/94

PROJECT: 94-01-0018
ANALYST: CHYUN
ANALYSIS DATE: 1/05/94

CLIENT ID	LAB ID	RESULTS (mg/l)	MDL (MG/L)
A-94-1-5-6-BOD	006	340	2

WC123

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841160056

NORTHEASTERN ANALYTICAL CORPORATION

ANALYTICAL DATA PACKAGE FOR:

ALLIANCE CHEMICAL
309 AVENUE P
NEWARK, NJ 07105
ATTN: BILL HENNING

Project: MONTHLY

Test Report Date: January 21, 1994

NAC Job Number: L940045

Lab Sample Number	Client Sample Designation	Collection Date
L940045-1	NAC-94-1-5-1-BNA	05-JAN-94

Ian Lambert
Laboratory Director

Signature

Certifications:

PH-0726(CT), NJ101(DE), 160(MD), NJ101(MA), 203593A+B(NH), 03117(NJ), 11022(NY), 68-379(PA), 00237(VA)

NORTHEASTERN ANALYTICAL CORPORATION
Test Report No. 940045
Alliance Chemical

TABLE OF CONTENTS

File: 51L\TEST\940045

NORTHEASTERN ANALYTICAL CORPORATION
Test Report No. 940045
Alliance Chemical

NARRATIVE

The following report contains the results of sample(s) sent to Northeastern Analytical Corporation by Alliance Chemical. The sample was received on January 5, 1993 and was analyzed for semivolatile organics. A laboratory chronicle follows and lists the samples associated with this project.

IWRL

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME

SAMPLERS: Alliance Chemical INC
33 Ave P 201-344-0344
Newark, N.J. 07105

NO. OF CONTAINERS

CONTAINER TYPE: BNA

REMARKS: contact Bill Henry FAX # 201-491-9299

SAMPLE	DATE	TIME	SOIL	AQ.	SAMPLE LOCATION	NO. OF CONTAINERS	BNA						REMARKS
	1/5/94	9:45		X	24 hr sample	3	X						Sample# NAC-94-1-5-1-BNA Testing must have MDL's of 50 ppb or less. Notify immediately if any problem or MDL's cannot be achieved. Sample may contain nitrite, nitrate, sulfite, sulfate. Please have results as soon as possible.

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	1/5/94 11:40	James [signature]	James Kleiny	1/5/94 14:30	[signature] 1/5/94 14:30

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time	Remarks

84116060

NAC PRESERVATIVE CHECKLIST

TO BE COMPLETED UPON SAMPLE RECEIPT

INSTRUCTIONS:

1. Place an X in box if okay
2. Record actual pH if outside acceptable range
3. Record temperature of cooler blank or note Y/N if samples are cooled
4. Record corrective action in remarks.

SIGNATURE: [signature]

DATE PERFORMED: 1/5/6

pH ≤ 2											>9	≥12	°C	SAMPLES	
COD	NH_3	TKN	TOX	VOA*	PHENOL	TOC	PHC/O&G	METALS	HARD	TPO_4	SO_2	CYAN	TEMP	NAC #	REMARKS
													~~Y~~/N	004515	2°C

*All VOA vials received with no headspace and septum was Teflon side down, except where noted.

SPECIAL INSTRUCTIONS/NONCOMPLIANCE NOTATIONS _____

_____

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841160061

NAC JOB#: 0065

SHELF #: _____

INTERNAL CHAIN OF CUSTODY

EXTRACTS / DIGESTATES

CLIENT [illegible] PROJECT _____

AQ Parameter/#Samples SV625- ABN + LS/ 1

Soil Parameter/#Samples _____

DATE	TIME	SAMPLE(S) RELINQUISHED BY	SAMPLE(S) RECEIVED BY	REASON FOR CHANGE OF CUSTODY
1/17/94	9.00 AM	[signature]	[signature]	ANALYSIS

REFER TO EXTERNAL COC FOR DESIGNATED SAMPLE INFORMATION

d:\qa\forms\intcoc.692

841160062

NORTHEASTERN ANALYTICAL CORPORATION
Test Report No. 940045
Alliance Chemical

METHODOLOGY

- Semivolatiles by GC/MS

  EPA Method 625 - This is a gas chromatograph/mass spectrometer (GC/MS) method applicable to the determination of a number of organic compounds that are partitioned in an organic solvent and amenable to gas chromatography. Federal Register, Vol. 40, No. 136, July, 1988.

  An HP5890/5970B GC/MS was used with a Rtx-5 fused silica capillary column.

  Report detection limits are as stated.

The following is a list of symbols an/or abbreviations which may be found in NAC reports.

Symbols	Description
U	Analyte is not detected above the method detection limit
ND	Analyte is not detected above the method detection limit
<	Analyte is present in the sample at an amount less than the reported result
>	Analyte is present in the sample at an amount greater than the reported result
MDL	Method Detection Limit
RDL	Report Detection Limit
PQL	Practical Quantitation Limit
TNTC	Coliform growth is too numerous to count (above 200)
dw	Dry Weight
B	Analyte is present in the associated method blank
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
RSD	Relative % Standard Deviation
CF	Calibration Factor
MI	Matrix Interference
HA	High Analyte
J	Estimated Value
D	Standard spike or surrogate diluted out
<=	Less than or equal to
>=	Greater than or equal to
N/A	Not Applicable

LABORATORY CHRONICLE

LAB. SAMPLE ID	CLIENT ID	SAMPLING DATE	MATRIX
L940045-1	NAC-94-1-5-1-BNA	05-JAN-94	Aqueous

EXTRACT DATE

PARAMETER	-1	-2	-3	-4	-5	-6
EMI-VOA	01/10/94					

ANALYSIS DATE

ARAMETER	-1	-2	-3	-4	-5	-6
MI-VOA	01/17/94					

NORTHEASTERN ANALYTICAL CORPORATION

REPORT OF RESULTS

Client: ALLIANCE CHEMICAL
Date Sampled: Jan 05, 1994

NAC Job Number: L940045
Date Received: Jan 05, 1994

Client ID: NAC-94-1-5-1-BNA

Lab Sample ID: L940045-1

PARAMETER	RESULTS	MDL	QUAL	UNITS
N-Nitrosodimethylamine	ND	50		ug/l
Phenol	31	15		ug/l
bis(2-Chloroethyl)Ether	ND	14		ug/l
2-Chlorophenol	ND	14		ug/l
1,3-Dichlorobenzene	ND	13		ug/l
1,4-Dichlorobenzene	ND	14		ug/l
1,2-Dichlorobenzene	ND	13		ug/l
bis(2-Chloroisopropyl)Ether	ND	15		ug/l
N-Nitroso-Di-N-Propylamine	ND	13		ug/l
Hexachloroethane	ND	12		ug/l
Nitrobenzene	ND	12		ug/l
Isophorone	ND	13		ug/l
2-Nitrophenol	ND	11		ug/l
2,4-Dimethylphenol	ND	11		ug/l
bis(-2-Chloroethoxy)Methane	ND	13		ug/l
2,4-Dichlorophenol	ND	12		ug/l
1,2,4-Trichlorobenzene	ND	13		ug/l
Naphthalene	ND	15		ug/l
Hexachlorobutadiene	ND	13		ug/l
4-Chloro-3-Methylphenol	ND	14		ug/l
Hexachlorocyclopentadiene	ND	50		ug/l
2,4,6-Trichlorophenol	ND	15		ug/l
2-Chloronaphthalene	ND	15		ug/l
Dimethylphthalate	29	10		ug/l
Acenaphthylene	ND	12		ug/l
Acenaphthene	ND	14		ug/l
2,4-Dinitrophenol	ND	7.0		ug/l
4-Nitrophenol	ND	32		ug/l
2,4-Dinitrotoluene	ND	16		ug/l
2,6-Dinitrotoluene	ND	14		ug/l
Diethylphthalate	ND	6.5		ug/l
4-Chlorophenyl-phenylether	ND	13		ug/l
Fluorene	ND	13		ug/l
4,6-Dinitro-2-methylphenol	ND	16		ug/l
N-Nitrosodiphenylamine	ND	13		ug/l

ate Extracted: 10-JAN-94
ate Analyzed: 17-JAN-94
ilution: 5

841160066

NORTHEASTERN ANALYTICAL CORPORATION

REPORT OF RESULTS

Client: ALLIANCE CHEMICAL
Date Sampled: Jan 05, 1994
NAC Job Number: L940045
Date Received: Jan 05, 1994
Client ID: NAC-94-1-5-1-BNA
Lab Sample ID: L940045-1

PARAMETER	RESULTS	MDL	QUAL	UNITS
1,2-diphenylhydrazine	ND	16		ug/l
4-Bromophenyl-phenylether	ND	15		ug/l
Hexachlorobenzene	ND	16		ug/l
Pentachlorophenol	ND	20		ug/l
Phenanthrene	ND	11		ug/l
Anthracene	ND	9.5		ug/l
Di-n-Butylphthalate	ND	10		ug/l
Fluoranthene	ND	13		ug/l
Benzidine	ND	50		ug/l
Pyrene	ND	30		ug/l
Butylbenzylphthalate	ND	18		ug/l
3,3'-Dichlorobenzidine	ND	20		ug/l
Benzo(A)Anthracene	ND	15		ug/l
Bis(2-Ethylhexyl)Phthalate	ND	17		ug/l
Chrysene	ND	15		ug/l
Di-N-Octylphthalate	ND	19		ug/l
Benzo(B) Fluoranthene	ND	15		ug/l
Benzo (K) Fluoranthene	ND	13		ug/l
Benzo(A) Pyrene	ND	13		ug/l
Indeno(1,2,3-Cd) Pyrene	ND	19		ug/l
Dibenzo(A,H) Anthracene	ND	14		ug/l
Benzo(G,H,I)Perylene	ND	13		ug/l

te Extracted: 10-JAN-94
te Analyzed: 17-JAN-94
lution: 5

841160067

USER CHARGE SELF MONITORING REPORT

NAME ALLIANCE CHEMICAL INC.
ADDRESS 33 AVENUE P. NEWARK, N.J. 07105
FACILITY LOCATION SAME
OUTLET DESIGNATION (17 DIGITS) 20401080-44000-0201

Monitoring Period					
11	1	95	11	30	95
Mo.	Day	Yr.	Mo.	Day	Yr.
Start			End		

VOL DISCHARGED THIS PERIOD
95931 gal.
CU. FT. X 7.48 = GALLONS
EFFLUENT METER READING LAST DAY THIS PERIOD.

DATE	BOD 0301	TSS 0530		DATE	BOD 0310	TSS 0530	
11/2/95	205	10					

SIGNATURE OF PRINCIPAL OR AUTHORIZED AGENT	TYPE NAME AND TITLE	TELEPHONE NO.
William C Henning	William C. Henning	344-2344
	Plant Manager	DATE: Dec 5, 1995

PVSC FORM MR-2 REV. 2 1/86

841160068

ALLIANCE CHEMICAL INC.
A SUBSIDIARY OF PFISTER CHEMICAL INC.

October 17, 1991

Carmine T. Perrapato
Executive Director
Passaic Valley Sewer Commission
600 Wilson Avenue
Newark, NJ 07105

Dear Mr. Perrapato:

Enclosed find the MR-1 forms for Alliance Chemical Inc's. report on compliance for the period 9/1/91 to 9/30/91.

Very truly yours,

ALLIANCE CHEMICAL, INC.

Richard E. Braun

Richard E. Braun

V.P. Operations

Enc.
REB:ism

841160069

309-327 AVENUE P, NEWARK, NJ 07105 • (201) 344-2344 • FAX (201) 945-0159 • TELEX 130-295 (PFISTER RIDE)

Name ALLIANCE CHEMICAL INC.
Mailing Address 33 Avenue P, Newark, N.J., 07105
Facility Location 309 Avenue P, Newark, N.J.,07105
Category & Subpart 40 CFR 414.85 Subpart H Outlet # 20401080-44000-0201
Contact Official William Henning Telephone # 201-344-2344

Monitoring Period					
9	1	91	9	30	91
Mo.	Day	Yr.	Mo.	Day	Yr.
Start			End		

For Reporting Period

	AVG	MAX
Regulated flow-gal/day	25849	29726
Total Flow-gal/day	26399	30358

Production rate (if applicable)

Method used See Note below

Composite samples were determined using the combined waste stream formula.
Grab samples used total flow minus domestic flow. See attached sheet.

Parameter		Mass Limit or Concentration			No. of Samples	Sample type Comp./grab
		Average	Maximum	Units		
Benzene	Sample measurement	<5.0	<5.0	ppb	1	Grab
	Permit requirement	57	134	"		
Carbon Tetrachloride	Sample measurement	<5.0	<5.0	"	1	Grab
	Permit requirement	142	380	"		
Chlorobenzene	Sample measurement	111	111	"	1	Grab
	Permit requirement	142	380	"		
1,2,4,-Trichloro-benzene	Sample measurement	<10	<10	"	1	Composite
	Permit requirement	192	777	"		
Hexachloro-benzene	Sample measurement	<10	<10	"	1	Composite
	Permit requirement	192	777	"		
1,2-Dichloro-ethane	Sample measurement	<5.0	<5.0	"	1	Grab
	Permit requirement	180	574	"		
1,1,1-trichloroethane	Sample measurement	<5.0	<5.0	"	1	Grab
	Permit requirement	22	59	"		
Hexachloro-ethane	Sample measurement	<10	<10	"	1	Composite
	Permit requirement	192	777	"		
1,1-Dichloro-ethane	Sample measurement	<5.0	<5.0	"	1	Grab
	Permit requirement	22	59	"		

841160070

Name ALLIANCE CHEMICAL INC.
Mailing Address 33 Avenue P, Newark, N.J., 07105
Facility Location 309 Avenue P, Newark, N.J.,07105
Category & Subpart 40 CFR 414.85 Subpart H Outlet # 20401080-44000-0201
Contact Official William Henning Telephone # 201-344-2344

Monitoring Period					
9	1	91	9	30	91
Mo.	Day	Yr.	Mo.	Day	Yr.
Start			End		

Production rate (if applicable)

For Reporting Period

	AVG	MAX
Regulated flow-gal/day	25849	29726
Total Flow-gal/day	26399	30358

Method used See Note below

Composite samples were determined using the combined waste stream formula.
Grab samples used total flow minus domestic flow. See attached sheet.

Parameter		Mass Limit or Concentration			No. of Samples	Sample type Comp./grab
		Average	Maximum	Units		
1,1,2-Trichloro-ethane	Sample measurement	<5.0	<5.0	ppb	1	Grab
	Permit requirement	32	127	"		
Chloroethane	Sample measurement	<5.0	<5.0	"	1	Grab
	Permit requirement	110	295	"		
Chloroform	Sample measurement	18.8	18.8	"	1	Grab
	Permit requirement	111	325	"		
1,2-Dichlorobenzene	Sample measurement	<10.0	<10.0	"	1	Composite
	Permit requirement	192	777	"		
1,3-Dichloro-benzene	Sample measurement	<10.0	<10.0	"	1	Composite
	Permit requirement	139	372	"		
1,4-Dichloro-benzene	Sample measurement	<10.0	<10.0	"	1	Composite
	Permit requirement	139	372	"		
1,1-Dichloro-ethylene	Sample measurement	<5.0	<5.0	"	1	Grab
	Permit requirement	22	60	"		
1,2-trans-Dichloro-ethylene	Sample measurement	<5.0	<5.0	"	1	Grab
	Permit requirement	25	66	"		
1,2-Dichloro-propane	Sample measurement	<5.0	<5.0	"	1	Grab
	Permit requirement	196	794	"		

841160071

me ALLIANCE CHEMICAL INC.
iling Address 33 Avenue P, Newark, N.J., 07105
cility Location 309 Avenue P, Newark, N.J., 07105
tegory & Subpart 40 CFR 414.85 Subpart H Outlet # 20401080-44000-0201
ntact Official William Henning Telephone # 201-344-2344

Monitoring Period					
9	1	91	9	30	91
Mo.	Day	Yr.	Mo.	Day	Yr.
Start			End		

For Reporting Period

	AVG	MAX
Regulated flow-gal/day	25849	29726
Total Flow-gal/day	26399	30358

Production rate (if applicable)

Method used See Note below

mposite samples were determined using the combined waste stream formula.
ab samples used total flow minus domestic flow. See attached sheet.

Parameter		Mass Limit or Concentration			No. of Samples	Sample type Comp./grab
		Average	Maximum	Units		
1,3-Dichloro-propylene	Sample measurement	<5.0	<5.0	ppb	1	Grab
	Permit requirement	196	794	"		
Ethylbenzene	Sample measurement	15.9	15.9	"	1	Grab
	Permit requirement	142	380	"		
Methylene-chloride	Sample measurement	<5.0	<5.0	"	1	Grab
	Permit requirement	36	170	"		
Methylchloride	Sample measurement	7.2	7.2	"	1	Grab
	Permit requirement	295	110	"		
Hexachloro-butadiene	Sample measurement	<10	<10	"	1	Composite
	Permit requirement	139	372	"		
Nitrobenzene	Sample measurement	<10	<10	"	1	Composite
	Permit requirement	2190	6269	"		
2-Nitrophenol	Sample measurement	<10	<10	"	1	Composite
	Permit requirement	64	226	"		
4-Nitrophenol	Sample measurement	<50	<50	"	1	Composite
	Permit requirement	159	564	"		
4,6-Dinitro-o-cresol	Sample measurement	<50	<50	"	1	Composite
	Permit requirement	76	271	"		

Name ALLIANCE CHEMICAL INC.
Mailing Address 33 Avenue P, Newark, N.J., 07105
Facility Location 309 Avenue P, Newark, N.J., 07105
Category & Subpart 40 CFR 414.85 Subpart H Outlet # 20401080-44000-0201
Contact Official William Henning Telephone # 201-344-2344

Monitoring Period					
9	1	91	9	30	91
Mo.	Day	Yr.	Mo.	Day	Yr.
Start			End		

For Reporting Period

	AVG	MAX
Regulated flow-gal/day	25849	29726
Total Flow-gal/day	26399	30358

Production rate (if applicable)

Method used See Note below

Composite samples were determined using the combined waste stream formula.
Grab samples used total flow minus domestic flow. See attached sheet.

Parameter		Mass Limit or Concentration			No. of Samples	Sample type Comp./grab
		Average	Maximum	Units		
Tetrachloro-ethylene	Sample measurement	<5.0	<5.0	ppb	1	Grab
	Permit requirement	52	164	"		
Toluene	Sample measurement	<5.0	<5.0	"	1	"
	Permit requirement	28	74	"		
Trichloro-ethylene	Sample measurement	<5.0	<5.0	"	1	"
	Permit requirement	26	69	"		
Vinyl Chloride	Sample measurement	<5.0	<5.0	"	1	"
	Permit requirement	97	172	"		
	Sample measurement					
	Permit requirement					
Total Cyanide	Sample measurement	39.7	89	"	3	Grab
	Permit requirement	420	1200	"		
Total Lead	Sample measurement	<100	<100	"	4	Composite
	Permit requirement	313	676	"		
Total Zinc	Sample measurement	11540	28200	"	4	"
	Permit requirement	1028	2558	"		

841160073

NON-COMPLIANCE STATEMENT
ATTACHMENT 1

1.) Zinc

We have been unable to achieve compliance, with respect to zinc, by treating the production filtrates and have decided instead to do end of the pipe treatment on the total effluent. Pilot tests neutralizing the final effluent with magnesium hydroxide instead of caustic soda, followed by filtration have been started. Initial results look promising and we expect to be in compliance by June of 1992.

:e. Combined waste stream formula

The only unregulated flow in our plant consists of water used for sanitary purposes. We have 22 employees and assume that each uses 25 gallons per day. Total unregulated usage over 20 working days during the reporting period was:

22 employees x 25 gal/emp x 20 = 11,000 gallons

Our total flow to sewers was 527,976 gal.
Our average daily total flow was 26,399 gal.

Grab samples were taken upstream from the point of dilution with domestic (sanitary) waste water, (See flow diagram) , and represent our total flow minus the sanitary flow. 527,976 gal. - 11,000 gal = 516,976 gal. This represents an Average Regulated Daily Flow of 25,849 gallons.

Composite samples were taken from the total flow, including the sanitary flow. All permit limits pertaining to composite samples were therefore adjusted by a factor of 0.9792 .
(516,976 / 527,976)

Please note that the adjusted figures were used only for parameters tested using composite samples.

7a. Water volume was calculated from the sum of the readings from our compound water meter.

		METER A	METER B
ENDING	9/30/91	34480300	418400
STARTING	9/1/91	34412100	412300
		68200	6100

TOTAL USAGE = 74,300 CU. FT = 555,764 GAL.
Total Flow To Sewers was 95% of above: = 527,976 gal.

Certification of Non-use if applicable (use additional sheets)

N/A

Compliance or non compliance statement with compliance schedule (use additional sheets if necessary) for every parameter used.

We are in compliance with all parameters except for the following: 1) Zinc.

See attached sheet.

Explain method for preserving samples.

1) All samples were preserved at 0-4°C.
2) Heavy metal samples were preserved with nitric acid at a pH <1.0 .
3) Cyanide samples were preserved with caustic at a pH >12.0 .
4)VOA samples were preserved with ascorbic acid/ Hydrochloric Acid (1:1) in a 40 ml vial.
5) BNA samples were stored in a brown bottle.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the informayion submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the bestof my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

403.6(a)(2)(ii) revised by 53 FR 40610, October, 17, 1988

Richard E Braun

Signature of Principal
Executive or Authorized Agent

Richard Braun

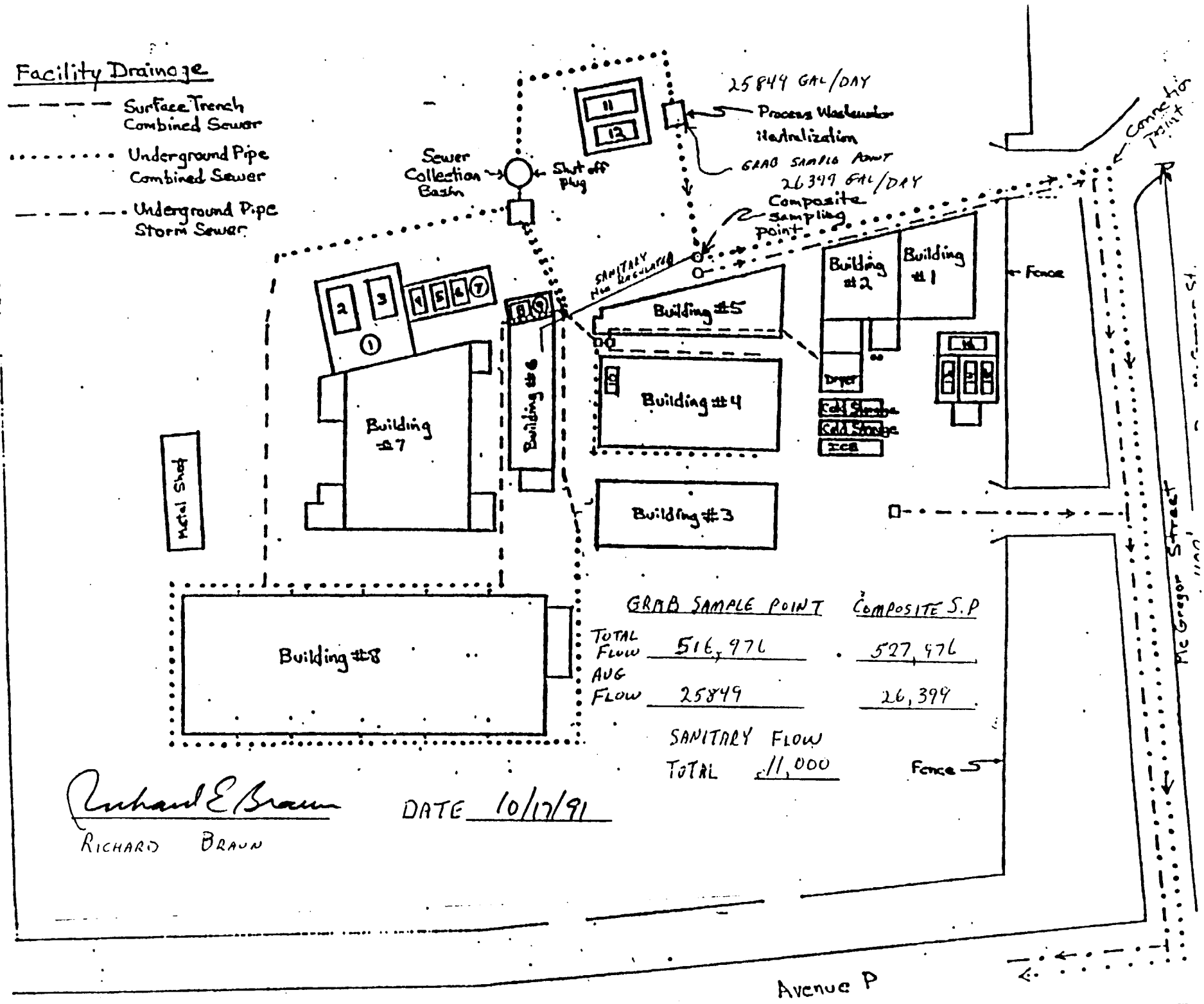
Vice President of Manufacturing
Type Name and Title

10/17/91

Date

PVSC Form MR-1 Rev. 5 3/91 P2

841160076


Facility Drainage
Surface Trench Combined Sewer
Underground Pipe Combined Sewer
Underground Pipe Storm Sewer
25849 GAL/DAY
Process Wastewater Neutralization
GRAB SAMPLE POINT
26399 GAL/DAY
Composite Sampling Point
Sewer Collection Basin
Shut off Plug
Connection Point
Building #1
Building #2
Building #3
Building #4
Building #5
Building #6
Building #7
Building #8
Metal Shed
Fence
Dryer
Cold Storage
Cold Storage
Ice
McGregor Street
Avenue P
GRAB SAMPLE POINT
COMPOSITE S.P
TOTAL FLOW 516,976
527,476
AVG FLOW 25849
26,399
SANITARY FLOW TOTAL 11,000
Richard E Braun
DATE 10/17/91
RICHARD BRAUN

841160077

GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing

410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

MATHEW KLEIN, M.S., Director
HARVEY KLEIN, M.S., Lab Supervisor

REPORT OF ANALYSIS
BASE/NEUTRAL COMPOUNDS

TO: ALLIANCE CHEMICAL INC.
33 AVENUE P

NEWARK NJ 07105
ATT: ROGER HUTH

REPORT # 910904066
CLIENT # ALL02
DATE SUBMITTED: 9/4/91

SAMPLE TYPE: WATER
SAMPLE ID: 24 HR. COMPOSITE
SAMPLE LOCATION: @24 HR. SAMPLER
REF.#60-10-R TAG #190212
DATE SAMPLED: TIME SAMPLED: 8:20A.M.

COMPOUND	RESULT	COMPOUND	RESULT
ACENAPHTHENE	<10.0	2,4-DINITROTOLUENE	<10.0
ACENAPHTHYLENE	<10.0	2,6-DINITROTOLUENE	<10.0
ANTHRACENE	<10.0	DI-N-OCTYLPHTHLATE	<10.0
BENZIDINE	<50	FLUORANTHENE	<10.0
BENZO(a)ANTHRACENE	<10.0	FLUORENE	<10.0
BENZO(b)FLUORANTHENE	<10.0	HEXACHLOROBENZENE	<10.0
BENZO(k)FLUORANTHENE	<10.0	HEXACHLOROBUTADIENE	<10.0
BENZO(a)PYRENE	<10.0	HEXACHLOROCYCLOPENTADIENE	<10.0
BENZO(ghi)PERYLENE	<10.0	HEXACHLOROETHANE	<10.0
BENZYL BUTYL PHTHALATE	<10.0	INDENO(1,2,3-cd)PYRENE	<10.0
BIS(2-CHLOROETHYL)ETHER	<10.0	ISOPHORONE	<10.0
BIS(2-CHLOROETHOXY)METHANE	<10.0	NAPHTHALENE	<10.0
BIS(2-ETHYLHEXYL)PHTHALATE	35.6	NITROBENZENE	<10.0
BIS(2-CHLOROISOPROPYL)ETHER	<10.0	N-NITROSODIMETHYLAMINE	<10.0
4-BROMOPHENYL PHENYL ETHER	<10.0	N-NITROSODI-N-PROPYLAMINE	<10.0
2-CHLORONAPHTHALENE	<10.0	N-NITROSODIPHENYLAMINE	<10.0
4-CHLOROPHENYLPHENYL ETHER	<10.0	PHENANTHRENE	<10.0
CHRYSENE	<10.0	PYRENE	<10.0
DIBENZO(a,h)ANTHRACENE	<10.0	1,2,4-TRICHLOROBENZENE	<10.0
DI-N-BUTYLPHTHALATE	33.9		
1,3-DICHLOROBENZENE	<10.0		
1,2-DICHLOROBENZENE	<10.0		
1,4-DICHLOROBENZENE	<10.0	DATE EXTRACTED	9/10/91
3,3'-DICHLOROBENZIDINE	<10.0	DATE ANALYZED	9/30/91
DIETHYL PHTHALATE	<10.0	NOTE: SURROGATES LOW DUE	
DIMETHYL PHTHALATE	<10.0	TO MATRIX INTERFERNCE	

RESULTS ARE IN PARTS PER BILLION.

<= LESS THAN, NONE DETECTED
ANALYSIS PERFORMED BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY, USEPA METHOD 625.

Certified by U.S. Public Health Service, N.J. Dept. of Health and N.J.D.E.P.-Lab #20044

841160078

GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing

410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

MATHEW KLEIN, M.S., Director
HARVEY KLEIN, M.S., Lab Supervisor

REPORT OF ANALYSIS
BASE/NEUTRAL COMPOUNDS

TO:

REPORT # 910910000
CLIENT #
DATE SUBMITTED:

ATT:

SAMPLE TYPE: BLANK
SAMPLE ID: FOR SAMPLES EXTRACTED: 9/10/91
SAMPLE LOCATION:

DATE SAMPLED: TIME SAMPLED:

COMPOUND	RESULT	COMPOUND	RESULT
ACENAPHTHENE	<10.0	2,4-DINITROTOLUENE	<10.0
ACENAPHTHYLENE	<10.0	2,6-DINITROTOLUENE	<10.0
ANTHRACENE	<10.0	DI-N-OCTYLPHTHLATE	<10.0
BENZIDINE	<50	FLUORANTHENE	<10.0
BENZO(a)ANTHRACENE	<10.0	FLUORENE	<10.0
BENZO(b)FLUORANTHENE	<10.0	HEXACHLOROBENZENE	<10.0
BENZO(k)FLUORANTHENE	<10.0	HEXACHLOROBUTADIENE	<10.0
BENZO(a)PYRENE	<10.0	HEXACHLOROCYCLOPENTADIENE	<10.0
BENZO(ghi)PERYLENE	<10.0	HEXACHLOROETHANE	<10.0
BENZYL BUTYL PHTHALATE	<10.0	INDENO(1,2,3-cd)PYRENE	<10.0
BIS(2-CHLOROETHYL)ETHER	<10.0	ISOPHORONE	<10.0
BIS(2-CHLOROETHOXY)METHANE	<10.0	NAPHTHALENE	<10.0
BIS(2-ETHYLHEXYL)PHTHALATE	<10.0	NITROBENZENE	<10.0
BIS(2-CHLOROISOPROPYL)ETHER	<10.0	N-NITROSODIMETHYLAMINE	<10.0
4-BROMOPHENYL PHENYL ETHER	<10.0	N-NITROSODI-N-PROPYLAMINE	<10.0
2-CHLORONAPHTHALENE	<10.0	N-NITROSODIPHENYLAMINE	<10.0
4-CHLOROPHENYLPHENYL ETHER	<10.0	PHENANTHRENE	<10.0
CHRYSENE	<10.0	PYRENE	<10.0
DIBENZO(a,h)ANTHRACENE	<10.0	1,2,4-TRICHLOROBENZENE	<10.0
DI-N-BUTYLPHTHALATE	52.9		
1,3-DICHLOROBENZENE	<10.0		
1,2-DICHLOROBENZENE	<10.0		
1,4-DICHLOROBENZENE	<10.0	DATE EXTRACTED	9/10/91
3,3'-DICHLOROBENZIDINE	<10.0	DATE ANALYZED	9/30/91
DIETHYL PHTHALATE	<10.0		
DIMETHYL PHTHALATE	<10.0		

RESULTS ARE IN PARTS PER BILLION.

<= LESS THAN, NONE DETECTED
ANALYSIS PERFORMED BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY, USEPA METHOD 3540/8270.

Certified by U.S. Public Health Service, N.J. Dept. of Health and N.J.D.E.P.–Lab #20044

GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing

410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8956

MATHEW KLEIN, M.S., Director
HARVEY KLEIN, M.S., Lab Supervisor

REPORT OF ANALYSIS
ACID EXTRACTABLE COMPOUNDS

TO: ALLIANCE CHEMICAL INC.
33 AVENUE P

NEWARK NJ 07105

ATT: MR. BILL HENNING

REPORT # 910904066
CLIENT # ALL02
DATE SUBMITTED: 9/4/91

SAMPLE TYPE: WATER
SAMPLE ID: 24 HR. COMPOSITE
SAMPLE LOCATION: @24 HR. SAMPLER
REF. #60-10-R TAG #190212
DATE SAMPLED: TIME SAMPLED: 8:20A.M.

COMPOUND	RESULT	COMPOUND	RESULT
4-CHLORO-3-METHYLPHENOL	<10.0	4-NITROPHENOL	<50
2-CHLOROPHENOL	<10.0	PENTACHLOROPHENOL	<50
2,4-DICHLOROPHENOL	<10.0	PHENOL	<10.0
2,4-DIMETHYLPHENOL	<10.0	2,4,6-TRICHLOROPHENOL	<10.0
2,4-DINITROPHENOL	<50		
2-METHYL-4,6-DINITROPHENOL	<50	DATE EXTRACTED	9/10/91
2-NITROPHENOL	<10.0	DATE ANALYZED	9/30/91

TEST RESULTS ARE IN PARTS PER BILLION.
<=LESS THAN, NONE DETECTED.
ANALYSIS PERFORMED BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY, USEPA METHOD 625.

NOTE: SURROGATES LOW DUE TO MATRIX INTERFERENCE

Certified by U.S. Public Health Service, N.J. Dept. of Health and N.J.D.E.P.-Lab #20044

841160080

GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing

410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

MATHEW KLEIN, M.S., Director
HARVEY KLEIN, M.S., Lab Supervisor

REPORT OF ANALYSIS
ACID EXTRACTABLE COMPOUNDS

TO:

REPORT # 910910000
CLIENT #
DATE SUBMITTED:

ATT:

SAMPLE TYPE: BLANK
SAMPLE ID: FOR SAMPLES EXTRACTED: 9/10/91
SAMPLE LOCATION:

DATE SAMPLED: TIME SAMPLED:

COMPOUND	RESULT	COMPOUND	RESULT
4-CHLORO-3-METHYLPHENOL	<20.0	4-NITROPHENOL	<50
2-CHLOROPHENOL	<20.0	PENTACHLOROPHENOL	<50
2,4-DICHLOROPHENOL	<20.0	PHENOL	<20.0
2,4-DIMETHYLPHENOL	<20.0	2,4,6-TRICHLOROPHENOL	<20.0
2,4-DINITROPHENOL	<50		
2-METHYL-4,6-DINITROPHENOL	<50		
2-NITROPHENOL	<20.0	DATE EXTRACTED	9/10/91
		DATE ANALYZED	9/27/91

TEST RESULTS ARE IN PARTS PER BILLION.
<=LESS THAN, NONE DETECTED.
ANALYSIS PERFORMED BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY, USEPA METHOD 625.

Certified by U.S. Public Health Service, N.J. Dept. of Health and N.J.D.E.P.-Lab #20044

GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing

410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

MATHEW KLEIN, M.S., Director
HARVEY KLEIN, M.S., Lab Supervisor

REPORT OF ANALYSIS
VOLATILE ORGANIC COMPOUNDS

TO: ALLIANCE CHEMICAL INC.
33 AVENUE P

NEWARK NJ 07105

ATT: MR. WILLIAM HENNING

REPORT # 910904071
CLIENT # ALL02
DATE SUBMITTED: 9/4/91

SAMPLE TYPE: GRAB WATER
SAMPLE ID: ref.# 60-10-q tab# 190211
SAMPLE LOCATION: @SEWER
po# 17186
DATE SAMPLED: 9/4/91 TIME SAMPLED: 8:20 am

COMPOUND	RESULT	COMPOUND	RESULT
Chloromethane	7.2	1,1,2 Trichloroethane	<5.0
Bromomethane	<5.0	cis-1,3 Dichloropropylene	<5.0
Dichlorodifluoromethane	<5.0	Benzene	<5.0
Vinyl Chloride	<5.0	2-Chloroethylvinyl ether	<5.0
Chloroethane	<5.0	Bromoform	<5.0
Methylene Chloride	<5.0	1,1,2,2 Tetrachloroethane	<5.0
Trichlorofluoromethane	<5.0	Tetrachloroethylene	<5.0
1,1 Dichloroethylene	<5.0	Toluene	<5.0
1,1 Dichloroethane	<5.0	Chlorobenzene	111
trans-1,2 Dichloroethlylene	<5.0	Ethylbenzene	15.9
Chloroform	18.8	p-Xylene	---
1,2 Dichloroethane	<5.0	m-Xylene	57.0
1,1,1 Trichloroethane	<5.0	o-Xylene	---
Carbon Tetrachloride	<5.0	1,2 Dichlorobenzene	<5.0
Bromodichloromethane	<5.0	1,3 Dichlorobenzene	<5.0
1,2 Dichloropropane	<5.0	1,4 Dichlorobenzene	<5.0
trans-1,3 Dichloropropene	<5.0	cis-1,2 Dichloroethylene	<5.0
Trichloroethlyene	<5.0	O,P- Xylene	89.8
Dibromochloromethane	<5.0	Date of Analysis	9/18/91
Methyl tert-Butyl Ether	<5.0		
Isopropyl Ether	<5.0		

RESULTS ARE IN PARTS PER BILLION.

<=LESS THAN, NONE DETECTED. ANALYSIS PERFORMED BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY USEPA METHOD 624.

Certified by U.S. Public Health Service, N.J. Dept. of Health and N.J.D.E.P.–Lab #20044

841160082

GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing

410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

MATHEW KLEIN, M.S., Director
HARVEY KLEIN, M.S., Lab Supervisor

REPORT OF ANALYSIS
VOLATILE ORGANIC COMPOUNDS

TO: ALLIANCE CHEMICAL INC.
33 AVENUE P

NEWARK NJ 07105

ATT: MR. WILLIAM HENNING

REPORT # 910904072
CLIENT # ALL02
DATE SUBMITTED: 9/4/91

SAMPLE TYPE: WATER
SAMPLE ID: TRIP BLANK
SAMPLE LOCATION: PO# 17186

DATE SAMPLED: TIME SAMPLED:

COMPOUND	RESULT	COMPOUND	RESULT
Chloromethane	<5.0	1,1,2 Trichloroethane	<5.0
Bromomethane	<5.0	cis-1,3 Dichloropropylene	<5.0
Dichlorodifluoromethane	<5.0	Benzene	<5.0
Vinyl Chloride	<5.0	2-Chloroethylvinyl ether	<5.0
Chloroethane	<5.0	Bromoform	<5.0
Methylene Chloride	<5.0	1,1,2,2 Tetrachloroethane	<5.0
Trichlorofluoromethane	<5.0	Tetrachloroethylene	<5.0
1,1 Dichloroethylene	<5.0	Toluene	<5.0
1,1 Dichloroethane	<5.0	Chlorobenzene	<5.0
trans-1,2 Dichloroethlylene	<5.0	Ethylbenzene	<5.0
Chloroform	<5.0	p-Xylene	<5.0
1,2 Dichloroethane	<5.0	m-Xylene	<5.0
1,1,1 Trichloroethane	<5.0	o-Xylene	<5.0
Carbon Tetrachloride	<5.0	1,2 Dichlorobenzene	<5.0
Bromodichloromethane	<5.0	1,3 Dichlorobenzene	<5.0
1,2 Dichloropropane	<5.0	1,4 Dichlorobenzene	<5.0
trans-1,3 Dichloropropene	<5.0	cis-1,2 Dichloroethylene	<5.0
Trichloroethlyene	<5.0	Date of Analysis	9/18/91
Dibromochloromethane	<5.0		
Methyl tert-Butyl Ether	<5.0		
Isopropyl Ether	<5.0		

RESULTS ARE IN PARTS PER BILLION.

<=LESS THAN, NONE DETECTED. ANALYSIS PERFORMED BY GAS CHROMATOGRAPHY/MASS SPECTROMETRY USEPA METHOD 624.

Certified by U.S. Public Health Service, N.J. Dept. of Health and N.J.D.E.P.–Lab #20044

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GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing

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Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

MATHEW KLEIN, M.S., Director
HARVEY KLEIN, M.S., Lab Supervisor

REPORT OF ANALYSIS

REPORT # 910904069
CLIENT # ALL02
DATE SUBMITTED: 9/4/91

TO: Alliance Chemical, Inc.
33 Avenue P

Newark NJ 07105
ATT: Mr. William Henning

SAMPLE TYPE: WATER
SAMPLE ID: GRAB - REF #60-10-U TAG #104418
SAMPLE LOCATION: @SEWER

DATE SAMPLED: 9/3/91 TIME SAMPLED: 10:00 A.M.

ANALYSIS	RESULT	UNITS	
Cyanide	0.089	mg/l	

< = less than, not detected.

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GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing

410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

MATHEW KLEIN, M.S., Director
HARVEY KLEIN, M.S., Lab Supervisor

REPORT OF ANALYSIS

REPORT # 910904068
CLIENT # ALL02
DATE SUBMITTED: 9/4/91

TO: Alliance Chemical, Inc.
33 Avenue P

Newark NJ 07105
ATT: Mr. William Henning

SAMPLE TYPE: WATER
SAMPLE ID: GRAB - REF #60-10-T TAG #190214
SAMPLE LOCATION: @SEWER

DATE SAMPLED: 9/4/91 TIME SAMPLED: 8:20 A.M.

ANALYSIS	RESULT	UNITS	
Cyanide	0.020	mg/l	

< = less than, not detected.

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GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing

410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

MATHEW KLEIN, M.S., Director
HARVEY KLEIN, M.S., Lab Supervisor

REPORT OF ANALYSIS

REPORT # 910904070
CLIENT # ALL02
DATE SUBMITTED: 9/4/91

TO: Alliance Chemical, Inc.
33 Avenue P

Newark NJ 07105
ATT: Mr. William Henning

SAMPLE TYPE: WATERS
SAMPLE ID: GRAB - REF #60-10-V TAG #142199
SAMPLE LOCATION: @SEWER

DATE SAMPLED: 9/3/91 TIME SAMPLED: 1:10 P.M.

ANALYSIS	RESULT	UNITS	
Cyanide	<0.01	mg/l	

< = less than, not detected.

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GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing

410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

MATHEW KLEIN, M.S., Director
HARVEY KLEIN, M.S., Lab Supervisor

REPORT OF ANALYSIS

REPORT # 910924032
CLIENT # ALL02
DATE SUBMITTED: 9/24/91

TO: Alliance Chemical, Inc.
33 Avenue P

Newark NJ 07105

ATT: Mr. William Henning

SAMPLE TYPE: WASTEWATER
SAMPLE ID: 24 HR. COMPOSITE
SAMPLE LOCATION: @SAMPLER

DATE SAMPLED: TIME SAMPLED: 7:50A.M.

ANALYSIS	RESULT	UNITS	
Biochemical Oxygen Demand	351.0	mg/l	
Total Suspended Solids	134.	mg/l	

< = less than, not detected.

Certified by U.S. Public Health Service, N.J. Dept. of Health and N.J.D.E.P.-Lab #20044

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GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing

410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

MATHEW KLEIN, M.S., Director
HARVEY KLEIN, M.S., Lab Supervisor

REPORT OF ANALYSIS

REPORT # 910904067
CLIENT # ALL02
DATE SUBMITTED: 9/4/91

TO: Alliance Chemical, Inc.
33 Avenue P

Newark NJ 07105
ATT: Mr. William Henning

SAMPLE TYPE: WATERS
SAMPLE ID: 24 HR. COMPOSITE - REF #60-10-S TAG #190213
SAMPLE LOCATION: @24 HR. SAMPLES

DATE SAMPLED: 9/4/91 TIME SAMPLED: 8:20 A.M.

ANALYSIS	RESULT	UNITS	
Lead	<0.100	mg/l	
Zinc	0.89	mg/l	

< = less than, not detected.

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Hillside, NJ 07205

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Fax (908) 688-8966

MATHEW KLEIN, M.S., Director
HARVEY KLEIN, M.S., Lab Supervisor

REPORT OF ANALYSIS

REPORT # 910910136
CLIENT # ALL02
DATE SUBMITTED: 9/10/91

TO: Alliance Chemical, Inc.
33 Avenue P

Newark NJ 07105
ATT: Mr. William Henning

SAMPLE TYPE: WATER
SAMPLE ID: 24 HR. COMPOSITE - REF#60-10-Z
SAMPLE LOCATION: @24 HR. SAMPLER

DATE SAMPLED: 9/10/91 TIME SAMPLED: 8:15 A.M.

ANALYSIS	RESULT	UNITS	
Lead	<0.100	mg/l	
Zinc	13.8	mg/l	

< = less than, not detected.

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GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing

410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

MATHEW KLEIN, M.S., Director
HARVEY KLEIN, M.S., Lab Supervisor

REPORT OF ANALYSIS

REPORT # 910917057
CLIENT # ALL02
DATE SUBMITTED: 9/17/91

TO: Alliance Chemical, Inc.
33 Avenue P

Newark NJ 07105
ATT: Mr. William Henning

SAMPLE TYPE: WATER
SAMPLE ID: COMPOSITE - REF #60-11-B
SAMPLE LOCATION: @24 HR. SAMPLER

DATE SAMPLED: 9/17/91 TIME SAMPLED: 8:15 A.M.

ANALYSIS	RESULT	UNITS	
Lead	<0.100	mg/l	
Zinc	28.2	mg/l	

< = less than, not detected.

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GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing

410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

MATHEW KLEIN, M.S., Director
HARVEY KLEIN, M.S., Lab Supervisor

REPORT OF ANALYSIS

REPORT # 910924195
CLIENT # ALL02
DATE SUBMITTED: 9/24/91

TO: Alliance Chemical, Inc.
33 Avenue P

Newark NJ 07105

ATT: Mr. William Henning

SAMPLE TYPE: WATER
SAMPLE ID: 24 HR. COMPOSITE - REF 60-11-C
SAMPLE LOCATION:

DATE SAMPLED: 9/24/91 TIME SAMPLED: 8:00 A.M.

ANALYSIS	RESULT	UNITS	
Lead	<0.100	mg/l	
Zinc	3.27	mg/l	

< = less than, not detected.

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GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing
410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

FOR LAB. USE ONLY
LAB #
RPT #
CLIENT #
CHG

CHAIN OF CUSTODY RECORD

PRESS HARD - USE BALL POINT PEN

NAME OF CLIENT
ADDRESS
DATE SUBMITTED
TIME SUBMITTED
CITY STATE ZIP
CONTACT TEL # ( )
SAMPLE(S) TYPE
SAMPLE(S) ID
SAMPLE LOCATION

DATE SAMPLED TIME SAMPLED PRESERVED
IF SAMPLE(S) CONTAIN HAZARDOUS SUBSTANCES, CHECK HERE ☐ AND SPECIFY
IF SAMPLE(S) REQUIRE SPECIAL QA/QC OR HANDLING, CHECK HERE ☐ AND SPECIFY

TESTS REQUESTED: ☐ ROUTINE (POTABLE WATER- T. COLI,S.P.C: NATURAL WATERS- F. COLI: FOODS-S.P.C., T. COLI, DM)

MICROBIOLOGY		WET CHEMISTRY		HEAVY METALS		ORGANICS	
STD. PLATE COUNT	☐	SDWA 2°	☐ CORROS. ☐	SDWA 1° PRIORITY POLLUTANTS	☐ EP TOX ☐	VOA	☐ A-280 ☐
TOTAL COLIFORM	☐	BOD	☐ TSS ☐		☐	THMs	☐ PEST ☐
FECAL COLIFORM	☐	COD	☐ TOC ☐	LEAD	☐ SODIUM ☐	HERB	☐ EP TOX ☐
FECAL STREP.	☐	PET HC	☐ OIL/GR. ☐	IRON	☐ MANG. ☐	BASE/NEUTRAL	☐
STAPH., C.P.	☐	TURB.	☐ NO3-N ☐	COPPER	☐ Cd ☐	ACID EXTRACTABLES	☐
SALMONELLA	☐	NO2-N	☐ NH3-N ☐	Cr	☐ Zn ☐	PCBs	☐
SHIGELLA	☐	TKN	☐ SO4 ☐	Al	☐ ID #27 ☐	ANALYSIS BY GC/MS	☐
LISTERIA	☐	T-PO4	☐ CN ☐	SLUDGE APPDX 007 008	☐ ☐	SLUDGE APPDX 009	☐
YEAST & MOLD	☐	Cl	☐ MBAS ☐				
P. aeruginosa	☐	pH	☐ T. HARD. ☐				

OTHER TESTS/INSTRUCTIONS

SUBMITTED BY:
RECEIVED BY:
RELINQUISHED BY:
RECEIVED BY:

FOR LAB USE ONLY: SAM RECP
MICRO
CHEM

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Certified by U.S. Public Health Service, N.J. Dept of Health and N.J.D.E.P. Lab # 20044

1-SAM RECP 2-MICRO 3-CHEM 4 CLIENT

841160092

GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing
410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

FOR LAB. USE ONLY
LAB #
RPT #
CLIENT #
CHG #

CHAIN OF CUSTODY RECORD

PRESS HARD - USE BALL POINT PEN

NAME OF CLIENT
ADDRESS
DATE SUBMITTED
TIME SUBMITTED
CITY STATE ZIP 07205
CONTACT TEL # ( ) 241-2344
SAMPLE(S) TYPE
SAMPLE(S) ID PO # 104418
SAMPLE LOCATION

DATE SAMPLED TIME SAMPLED PRESERVED ✓
IF SAMPLE(S) CONTAIN HAZARDOUS SUBSTANCES, CHECK HERE ☐ AND SPECIFY
IF SAMPLE(S) REQUIRE SPECIAL QA/QC OR HANDLING, CHECK HERE ☐ AND SPECIFY

TESTS REQUESTED: ☐ ROUTINE (POTABLE WATER- T. COLI,S.P.C: NATURAL WATERS- F. COLI: FOODS-S.P.C., T. COLI, DM)

MICROBIOLOGY		WET CHEMISTRY				HEAVY METALS				ORGANICS	
STD. PLATE COUNT	☐	SDWA 2°	☐	CORROS.	☐	SDWA 1° PRIORITY POLLUTANTS	☐	EP TOX	☐	VOA	☐
TOTAL COLIFORM	☐	BOD	☐	TSS	☐					A-280	☐
FECAL COLIFORM	☐	COD	☐	TOC	☐	LEAD	☐	SODIUM	☐	THMs	☐
FECAL STREP.	☐	PET HC	☐	OIL/GR.	☐	IRON	☐	MANG.	☐	PEST	☐
STAPH., C.P.	☐	TURB.	☐	NO3-N	☐	COPPER	☐	Cd	☐	HERB	☐
SALMONELLA	☐	NO2-N	☐	NH3-N	☐	Cr	☐	Zn	☐	EP TOX	☐
SHIGELLA	☐	TKN	☐	SO4	☐	Al	☐	ID #27	☐	BASE/NEUTRAL	☐
LISTERIA	☐	T-PO4	☐	CN	☐	SLUDGE APPDX 007	☐			ACID EXTRACTABLES	☐
YEAST & MOLD	☐	Cl	☐	MBAS	☐	008	☐			PCBs	☐
P. aeruginosa	☐	pH	☐	T. HARD.	☐					ANALYSIS BY GC/MS	☐
										SLUDGE APPDX 009	☐

OTHER TESTS/INSTRUCTIONS
PO # 104418

SUBMITTED BY:
RECEIVED BY:
RELINQUISHED BY:
RECEIVED BY:

FOR LAB USE ONLY: SAM RECP
MICRO
CHEM

1-SAM RECP 2-MICRO 3-CHEM 4-CLIENT

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GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing
410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

FOR LAB. USE ONLY
LAB #
RPT #
CLIENT #
CHG

CHAIN OF CUSTODY RECORD

PRESS HARD - USE BALL POINT PEN

NAME OF CLIENT
ADDRESS
DATE SUBMITTED
TIME SUBMITTED
CITY STATE ZIP
CONTACT TEL # ( )
SAMPLE(S) TYPE
SAMPLE(S) ID
SAMPLE LOCATION
DATE SAMPLED TIME SAMPLED PRESERVED
IF SAMPLE(S) CONTAIN HAZARDOUS SUBSTANCES, CHECK HERE ☐ AND SPECIFY
IF SAMPLE(S) REQUIRE SPECIAL QA/QC OR HANDLING, CHECK HERE ☐ AND SPECIFY

TESTS REQUESTED: ☐ ROUTINE (POTABLE WATER- T. COLI,S.P.C: NATURAL WATERS- F. COLI: FOODS-S.P.C., T. COLI, DM)

MICROBIOLOGY		WET CHEMISTRY		HEAVY METALS		ORGANICS	
STD. PLATE COUNT	☐	SDWA 2°	☐ CORROS. ☐	SDWA 1° PRIORITY POLLUTANTS	☐ EP TOX ☐	VOA	☐ A-280 ☐
TOTAL COLIFORM	☐	BOD	☐ TSS ☐			THMs	☐ PEST ☐
FECAL COLIFORM	☐	COD	☐ TOC ☐	LEAD	☐ SODIUM ☐	HERB	☐ EP TOX ☐
FECAL STREP.	☐	PET HC	☐ OIL/GR. ☐	IRON	☐ MANG. ☐	BASE/NEUTRAL	☐
STAPH., C.P.	☐	TURB.	☐ NO3-N ☐	COPPER	☐ Cd ☐	ACID EXTRACTABLES	☐
SALMONELLA	☐	NO2-N	☐ NH3-N ☐	Cr	☐ Zn ☐	PCBs	☐
SHIGELLA	☐	TKN	☐ SO4 ☐	Al	☐ ID #27 ☐	ANALYSIS BY GC/MS	☐
LISTERIA	☐	T-PO4	☐ CN ☐	SLUDGE APPDX 007 008	☐ ☐	SLUDGE APPDX 009	☐
YEAST & MOLD	☐	Cl	☐ MBAS ☐				
P. aeruginosa	☐	pH	☐ T. HARD. ☐				

OTHER TESTS/INSTRUCTIONS

SUBMITTED BY:
RECEIVED BY:
RELINQUISHED BY:
RECEIVED BY:

FOR LAB USE ONLY-SAM RECP
MICRO
CHEM

THE LIABILITY OF GARDEN STATE LABORATORIES, INC. FOR SERVICES RENDERED SHALL IN NO EVENT EXCEED THE AMOUNT OF THE INVOICE 1/91
Certified by U.S. Public Health Service, N.J. Dept of Health and N.J.D.E.P.-Lab # 20044

1 SAM RECP 2 MICRO 3 CHEM 4 CLIENT

841160094

GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing
410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

FOR LAB. USE ONLY
LAB #
RPT #
CLIENT #
CHG

CHAIN OF CUSTODY RECORD

PRESS HARD - USE BALL POINT PEN

NAME OF CLIENT Alliance Chemical Inc
ADDRESS 33 Doe P
DATE SUBMITTED 9/26
TIME SUBMITTED 10 30 AM
CITY Bayonne STATE NJ ZIP 07002
CONTACT Bill Heaney TEL # ( ) 391-8344
SAMPLE(S) TYPE Grab
SAMPLE(S) ID 1-10-Q GSL 120711
SAMPLE LOCATION Tower

DATE SAMPLED 9/26 TIME SAMPLED 8:20 AM PRESERVED —
IF SAMPLE(S) CONTAIN HAZARDOUS SUBSTANCES, CHECK HERE ☐ AND SPECIFY
IF SAMPLE(S) REQUIRE SPECIAL QA/QC OR HANDLING, CHECK HERE ☐ AND SPECIFY

TESTS REQUESTED: ☐ ROUTINE (POTABLE WATER- T. COLI,S.P.C: NATURAL WATERS- F. COLI: FOODS-S.P.C., T. COLI, DM)

MICROBIOLOGY		WET CHEMISTRY				HEAVY METALS				ORGANICS			
STD. PLATE COUNT	☐	SDWA 2°	☐	CORROS.	☐	SDWA 1° PRIORITY POLLUTANTS	☐	EP TOX	☐	VOA	☐	A-280	☐
TOTAL COLIFORM	☐	BOD	☐	TSS	☐					THMs	☐	PEST	☐
FECAL COLIFORM	☐	COD	☐	TOC	☐	LEAD	☐	SODIUM	☐	HERB	☐	EP TOX	☐
FECAL STREP.	☐	PET HC	☐	OIL/GR.	☐	IRON	☐	MANG.	☐	BASE/NEUTRAL			☐
STAPH., C.P.	☐	TURB.	☐	NO3-N	☐	COPPER	☐	Cd	☐	ACID EXTRACTABLES			☐
SALMONELLA	☐	NO2-N	☐	NH3-N	☐	Cr	☐	Zn	☐	PCBs			☐
SHIGELLA	☐	TKN	☐	SO4	☐	Al	☐	ID #27	☐	ANALYSIS BY GC/MS			☐
LISTERIA	☐	T-PO4	☐	CN	☐	SLUDGE APPDX 007 008	☐ ☐			SLUDGE APPDX 009			☐
YEAST & MOLD	☐	Cl	☐	MBAS	☐								
P. aeruginosa	☐	pH	☐	T. HARD.	☐								

OTHER TESTS/INSTRUCTIONS Test for volatile Organics
Please have results by 9/30/11
w/PO # 17166
Invoice me at the office

SUBMITTED BY: [signature] RELINQUISHED BY:
RECEIVED BY: RECEIVED BY:

FOR LAB USE ONLY: SAM RECP
MICRO
CHEM

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Certified by U.S. Public Health Service, N.J. Dept of Health and N.J.D.E.P.-Lab # 20044

1-SAM RECP 2-MICRO 3-CHEM 4-CLIENT

841160095

GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing
410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

FOR LAB USE ONLY
LAB#
RPT#
CLIENT#
CHG

CHAIN OF CUSTODY RECORD

PRESS HARD - USE BALL POINT PEN

NAME OF CLIENT
ADDRESS
DATE SUBMITTED
TIME SUBMITTED
CITY STATE ZIP
CONTACT TEL # ( )
SAMPLE(S) TYPE
SAMPLE(S) ID
SAMPLE LOCATION

DATE SAMPLED TIME SAMPLED PRESERVED
IF SAMPLE(S) CONTAIN HAZARDOUS SUBSTANCES, CHECK HERE ☐ AND SPECIFY
IF SAMPLE(S) REQUIRE SPECIAL QA/QC OR HANDLING, CHECK HERE ☐ AND SPECIFY

TESTS REQUESTED: ☐ ROUTINE (POTABLE WATER- T. COLI,S.P.C: NATURAL WATERS- F. COLI: FOODS-S.P.C., T. COLI, DM)

MICROBIOLOGY		WET CHEMISTRY		HEAVY METALS		ORGANICS	
STD. PLATE COUNT	☐	SDWA 2°	☐ CORROS. ☐	SDWA 1° PRIORITY POLLUTANTS	☐ EP TOX ☐	VOA	☐ A-280 ☐
TOTAL COLIFORM	☐	BOD	☐ TSS ☐			THMs	☐ PEST ☐
FECAL COLIFORM	☐	COD	☐ TOC ☐	LEAD	☐ SODIUM ☐	HERB	☐ EP TOX ☐
FECAL STREP.	☐	PET HC	☐ OIL/GR. ☐	IRON	☐ MANG. ☐	BASE/NEUTRAL	☐
STAPH., C.P.	☐	TURB.	☐ NO3-N ☐	COPPER	☐ Cd ☐	ACID EXTRACTABLES	☐
SALMONELLA	☐	NO2-N	☐ NH3-N ☐	Cr	☐ Zn ☐	PCBs	☐
SHIGELLA	☐	TKN	☐ SO4 ☐	Al	☐ ID #27 ☐	ANALYSIS BY GC/MS	☐
LISTERIA	☐	T-PO4	☐ CN ☐	SLUDGE APPDX 007	☐	SLUDGE APPDX 009	☐
YEAST & MOLD	☐	Cl	☐ MBAS ☐	008	☐		
P. aeruginosa	☐	pH	☐ T. HARD. ☐				

OTHER TESTS/INSTRUCTIONS

SUBMITTED BY:
RELINQUISHED BY:
RECEIVED BY:
RECEIVED BY:

FOR LAB USE ONLY: SAM RECP
MICRO
CHEM

THE LIABILITY OF GARDEN STATE LABORATORIES, INC. FOR SERVICES RENDERED SHALL IN NO EVENT EXCEED THE AMOUNT OF THE INVOICE 1-91
Certified by U.S. Public Health Service, N.J. Dept of Health and N.J.D.E.P.-Lab # 20044

1-SAM RECP 2-MICRO 3-CHEM 4-CLIENT

841160096

GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing
410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

FOR LAB. USE ONLY
LAB #
RPT #
CLIENT #
CHG

CHAIN OF CUSTODY RECORD

PRESS HARD - USE BALL POINT PEN

NAME OF CLIENT [illegible]
ADDRESS [illegible] DATE SUBMITTED [illegible]
TIME SUBMITTED [illegible]
CITY [illegible] STATE NJ ZIP 07205
CONTACT [illegible] TEL # ( ) [illegible]
SAMPLE(S) TYPE [illegible]
SAMPLE(S) ID [illegible] CS = 110913
SAMPLE LOCATION [illegible]

DATE SAMPLED [illegible] TIME SAMPLED [illegible] PRESERVED ✓
IF SAMPLE(S) CONTAIN HAZARDOUS SUBSTANCES, CHECK HERE ☐ AND SPECIFY
IF SAMPLE(S) REQUIRE SPECIAL QA/QC OR HANDLING, CHECK HERE ☐ AND SPECIFY

TESTS REQUESTED: ☐ ROUTINE (POTABLE WATER- T. COLI,S.P.C: NATURAL WATERS- F. COLI: FOODS-S.P.C., T. COLI, DM)

MICROBIOLOGY		WET CHEMISTRY			HEAVY METALS			ORGANICS	
STD. PLATE COUNT	☐	SDWA 2°	☐ CORROS. ☐		SDWA 1° PRIORITY POLLUTANTS	☐ EP TOX ☐		VOA	☐ A-280 ☐
TOTAL COLIFORM	☐	BOD	☐ TSS ☐					THMs	☐ PEST ☐
FECAL COLIFORM	☐	COD	☐ TOC ☐		LEAD	☑ SODIUM ☐		HERB	☐ EP TOX ☐
FECAL STREP.	☐	PET HC	☐ OIL/GR. ☐		IRON	☐ MANG. ☐		BASE/NEUTRAL	☐
STAPH. C.P.	☐	TURB.	☐ NO3-N ☐		COPPER	☐ Cd ☐		ACID EXTRACTABLES	☐
SALMONELLA	☐	NO2-N	☐ NH3-N ☐		Cr	☐ Zn ☑		PCBs	☐
SHIGELLA	☐	TKN	☐ SO4 ☐		Al	☐ ID #27 ☐		ANALYSIS BY GC/MS	☐
LISTERIA	☐	T-PO4	☐ CN ☐		SLUDGE APPDX 007 008	☐ ☐		SLUDGE APPDX 009	☐
YEAST & MOLD	☐	Cl	☐ MBAS ☐						
P. aeruginosa	☐	pH	☐ T. HARD. ☐						

OTHER TESTS/INSTRUCTIONS Test for Heavy Metals
Please have results by [illegible]
PO # 17166
Attn: Carlton [illegible]

SUBMITTED BY: [illegible] RELINQUISHED BY:
RECEIVED BY: RECEIVED BY:

FOR LAB USE ONLY: SAM RECP
MICRO
CHEM

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1-SAM RECP 2 MICRO 3 CHEM 4 CLIENT

841160097

GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing
410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

FOR LAB USE ONLY
LAB #
RPT #
CLIENT #
CHG

CHAIN OF CUSTODY RECORD

PRESS HARD - USE BALL POINT PEN

NAME OF CLIENT
ADDRESS
DATE SUBMITTED
TIME SUBMITTED
CITY STATE ZIP
CONTACT TEL # ( )
SAMPLE(S) TYPE
SAMPLE(S) ID
SAMPLE LOCATION
DATE SAMPLED TIME SAMPLED PRESERVED
IF SAMPLE(S) CONTAIN HAZARDOUS SUBSTANCES, CHECK HERE ☐ AND SPECIFY
IF SAMPLE(S) REQUIRE SPECIAL QA/QC OR HANDLING, CHECK HERE ☐ AND SPECIFY

TESTS REQUESTED: ☐ ROUTINE (POTABLE WATER- T. COLI,S.P.C: NATURAL WATERS- F. COLI: FOODS-S.P.C., T. COLI, DM)

MICROBIOLOGY		WET CHEMISTRY		HEAVY METALS		ORGANICS	
STD. PLATE COUNT	☐	SDWA 2°	☐ CORROS. ☐	SDWA 1°	☐ EP TOX ☐	VOA	☐ A-280 ☐
TOTAL COLIFORM	☐	BOD	☐ TSS ☐	PRIORITY POLLUTANTS	☐	THMs	☐ PEST ☐
FECAL COLIFORM	☐	COD	☐ TOC ☐	LEAD	☑ SODIUM ☐	HERB	☐ EP TOX ☐
FECAL STREP.	☐	PET HC	☐ OIL/GR. ☐	IRON	☐ MANG. ☐	BASE/NEUTRAL	☐
STAPH., C.P.	☐	TURB.	☐ NO3-N ☐	COPPER	☐ Cd ☐	ACID EXTRACTABLES	☐
SALMONELLA	☐	NO2-N	☐ NH3-N ☐	Cr	☐ Zn ☑	PCBs	☐
SHIGELLA	☐	TKN	☐ SO4 ☐	Al	☐ ID #27 ☐	ANALYSIS BY GC/MS	☐
LISTERIA	☐	T-PO4	☐ CN ☐	SLUDGE APPDX 007	☐	SLUDGE APPDX 009	☐
YEAST & MOLD	☐	Cl	☐ MBAS ☐	008	☐		
P. aeruginosa	☐	pH	☐ T. HARD. ☐				

OTHER TESTS/INSTRUCTIONS

SUBMITTED BY:
RECEIVED BY:
RELINQUISHED BY:
RECEIVED BY:

FOR LAB USE ONLY SAM RECP
MICRO
CHEM

1 SAM RECP 2-MICRO 3-CHEM 4 CLIENT

841160098

GARDEN STATE LABORATORIES, INC.

Bacteriological and Chemical Testing
410 Hillside Avenue
Hillside, NJ 07205

Telephone (908) 688-8900
Fax (908) 688-8966

FOR LAB USE ONLY
LAB #
RPT #
CLIENT #
CHG

CHAIN OF CUSTODY RECORD

PRESS HARD - USE BALL POINT PEN

NAME OF CLIENT
ADDRESS
DATE SUBMITTED 7/10/91
TIME SUBMITTED 11:30 AM
CITY STATE ZIP 07105
CONTACT TEL # ( ) 344-2344
SAMPLE(S) TYPE
SAMPLE(S) ID
SAMPLE LOCATION
DATE SAMPLED TIME SAMPLED PRESERVED
IF SAMPLE(S) CONTAIN HAZARDOUS SUBSTANCES, CHECK HERE ☐ AND SPECIFY
IF SAMPLE(S) REQUIRE SPECIAL QA/QC OR HANDLING, CHECK HERE ☐ AND SPECIFY

TESTS REQUESTED: ☐ ROUTINE (POTABLE WATER- T. COLI,S.P.C: NATURAL WATERS- F. COLI: FOODS-S.P.C., T. COLI, DM)

MICROBIOLOGY		WET CHEMISTRY		HEAVY METALS		ORGANICS	
STD. PLATE COUNT	☐	SDWA 2° ☐	CORROS. ☐	SDWA 1° ☐	EP TOX ☐	VOA ☐	A-280 ☐
TOTAL COLIFORM	☐	BOD ☐	TSS ☐	PRIORITY POLLUTANTS	☐	THMs ☐	PEST ☐
FECAL COLIFORM	☐	COD ☐	TOC ☐	LEAD ☑	SODIUM ☐	HERB ☐	EP TOX ☐
FECAL STREP.	☐	PET HC ☐	OIL/GR. ☐	IRON ☐	MANG. ☐	BASE/NEUTRAL	☐
STAPH., C.P.	☐	TURB. ☐	NO3-N ☐	COPPER ☐	Cd ☐	ACID EXTRACTABLES	☐
SALMONELLA	☐	NO2-N ☐	NH3-N ☐	Cr ☐	Zn ☑	PCBs	☐
SHIGELLA	☐	TKN ☐	SO4 ☐	Al ☐	ID #27 ☐	ANALYSIS BY GC/MS	☐
LISTERIA	☐	T-PO4 ☐	CN ☐	SLUDGE APPDX 007	☐	SLUDGE APPDX 009	☐
YEAST & MOLD	☐	Cl ☐	MBAS ☐	008	☐		
P. aeruginosa	☐	pH ☐	T. HARD. ☐				

OTHER TESTS/INSTRUCTIONS

SUBMITTED BY:
RELINQUISHED BY:
RECEIVED BY:
RECEIVED BY:

FOR LAB USE ONLY: SAM REC'D MICRO CHEM

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Certified by U.S. Public Health Service, N.J. Dept of Health and N.J.D.E.P.-Lab # 20044

5 1/91

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